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Corn & Soybean Plantings Change Little from Spring Intentions

Planted area for the eight major U.S. field crops (corn, sorghum, barley, oats, soybeans, wheat, cotton, and rice) is estimated at 249.1 million acres in 2002, up slightly from last year, based on USDA's *Acreage* report. Increases in corn, wheat, barley, and oats are partially offset by decreases in soybeans, cotton, rice, and sorghum. Hay area is estimated up more than 1 million acres.

U.S. Wheat Output & Exports To Decline in 2002/03

Prospects for the lowest U.S. wheat exports in more than 30 years are dominating the 2002/03 U.S. wheat outlook. Smaller U.S. supplies, shrinking global imports, and intense competition are combining to reduce U.S. exports. Despite a further drop in U.S. ending stocks this year, bleak export prospects dampen the price advantages from declining stocks. The projected price range for 2002/03 is $2.75 to $3.35 per bushel.

Is There a Tobacco Quota Buyout In the Future?

During the current session of Congress, several tobacco buyout bills have been submitted that would modify the tobacco program and provide for government purchase of quota from growers or other quota owners. Declining demand for tobacco is limiting the amount of quota available, and increased use of marketing contracts is reducing the amount of tobacco eligible for price support. Some growers seem ready to accept buyouts and give up the security of the price support safety net for greater freedom in making production and marketing decisions.

Rural Residential Land Use: Tracking Its Growth

Among the most rapidly growing land uses in the U.S. is land for rural residences. Residential land use in rural areas has increased more rapidly than in urban areas, not only in percentage terms but also in absolute numbers: 1 million acres per year compared with 420,000 acres. Rural residential lots tend to be much larger than urban lots: 60 percent of the residential acreage is in lots of over 10 acres. While land in residential use in rural areas is a small proportion of total U.S. land use, this phenomenon has implications for farmland prices and the availability of land for agriculture and forestry, and can affect rural amenities and the rural environment.

The Services Sector: Its Role In World Food Production & Trade

Trade in services is growing faster than merchandise trade. In the U.S. and other developed economies the services sector accounts for more than two-thirds of gross domestic product. The food system is increasingly affected by service sector growth—a growing share of consumers' food expenditures and farmers' input costs are for services. It may be time to shift the focus of policy reform from agricultural production to the broader food system.

African Growth & Opportunity Act: How Much Opportunity?

For Sub-Saharan Africa (SSA), trade could play a crucial role in economic development. To help create incentives for SSA countries to implement domestic economic and political reforms and improve market opportunities, Congress passed the African Growth and Opportunity Act (AGOA) in May 2000. AGOA provides preferential access to U.S. markets for designated Sub-Saharan countries and improved access to credit and technical expertise.

Trade Remedy Laws & Agriculture

During the past century, governments of industrialized nations devised three basic trade remedies—countervailing duties, antidumping provisions, and safeguards—as defense measures against imports causing injury to domestic industry. The Uruguay Round of international trade negotiations, which established the World Trade Organization (WTO), attempted to discipline inappropriate use of these trade remedies. Even so, trade remedies are being increasingly employed by WTO members against agricultural products, particularly value-added products. As a major exporter of high-value products, U.S. agriculture has a substantial interest in the outcome of WTO negotiations in the current Doha Round.

Assessing the Economic Well-Being Of Farm Households

While farm income or commodity prices are often cited as indicators of the economic well-being of farm households, the resulting picture is certainly incomplete and most likely distorted. The level of wealth, as well as the level of income from both farm and nonfarm sources, affects the consumption potential of farm households. A comprehensive assessment of well-being must therefore consider household wealth as well as income and consumption. Nearly half of all farm operator households had both higher income and higher wealth than all U.S. households in 2000.

Briefs

Livestock, Dairy, & Poultry

U.S. Red Meat & Poultry Exports May Hit Record Levels in 2003

Total U.S. meat exports are expected to increase nearly 9 percent in 2003 from weak 2002 levels, and may reach record levels for individual meats as well as in total. Likely bolstering the 2003 increase will be a resolution of recent food safety issues and a stronger world economy. In contrast, total meat exports in 2002 will likely decline 8-9 percent from the record 2001 level as a result of the strong dollar, slow world economic growth, and, perhaps most importantly, unexpected worldwide animal disease and food safety concerns. The 2002 decline will come from drops in pork and poultry exports, with beef exports expected to remain near the 2001 level.

Disease Concerns Have Affected Trade

The expected 8-9-percent decline in U.S. meat exports in 2002 follows an 8-percent increase in 2001 that was at least partially induced by the outbreak of foot and mouth disease (FMD) in the European Union (EU) early in 2001. With EU pork and beef banned in many countries during parts of 2001, the U.S. was able to increase its share in many world pork markets, notably Japan. U.S. poultry meat also substituted for banned EU pork on the Russian market. Russia did import increased amounts of heavily subsidized EU boneless beef, however. U.S. pork and poultry exports to all destinations increased by 21 percent and 12 percent, respectively, in 2001, more than offsetting an 8-percent decline in beef. EU meat exports resumed towards the end of 2001 as FMD was brought under control. Thus, lower U.S. exports in 2002 are at least partially the result of the EU regaining some of its pork markets.

In addition to the comeback of EU meat exports, food safety concerns in 2002 are also harming U.S. exports. The discovery of 4 bovine spongiform encephalopathy (BSE)-infected cows in Japan since September 2001 has led to a sharp drop in Japanese beef consumption and imports. U.S. beef has also suffered because of the strong U.S. dollar. BSE concerns were compounded by a rapid deterioration in Japan's economic outlook, and November-December U.S. beef exports to Japan dropped by one-third compared to a year earlier. Beef exports to Japan are not expected to return to normal levels until at least late 2003, as BSE concerns recede and Japanese economic growth resumes.

U.S. Meat Exports Up in 2003

U.S. beef exports are expected to increase 4-6 percent in 2003, after likely rising marginally in 2002, and could reach a near-record 2.4 billion pounds and a record 9.6 percent of beef production. Demand in Japan is expected to gradually return to near-normal levels over the next 12-18 months after being weak in 2002. With Korea's liquidation of beef stocks in preparation for complete market liberalization now accomplished and the Korean economy growing rapidly, U.S. beef exports to Korea should hit record levels both in 2002 and 2003.

U.S. pork exports are expected to increase 5 percent in 2003, after dropping 6 percent in 2002 as a result of static market growth in Japan and increased competition in a number of markets. The increased competition comes from Denmark—which can export pork again now that the EU is free of FMD—as well as Canada and Brazil. Canadian pork has become increasingly competitive with the U.S. in the Mexican market, particularly because of the strong U.S. dollar, but also because Canada is focusing heavily on exports. Meanwhile, Brazil has begun exporting pork to Russia. Even with this increased competition, continued economic recovery and growth in the three most important U.S. export markets—Japan, Mexico, and Canada—are expected to drive U.S. pork exports 5 percent higher in 2003, to a near-record 1.55 billion pounds. Korea's problems with FMD continue to keep it from competing in the Japanese market.

U.S. poultry exports continue to be influenced by food safety concerns. In 2002, Ukraine banned imports of U.S. poultry products, citing the use of antibiotics in U.S. broiler production and antimicrobial rinses in U.S. processing plants. Russia followed suit, claiming that some U.S. processing plants were not meeting inspection protocols and had tested positive for salmonella. Finally, both Mexico and Japan banned the import of poultry products from selected U.S. states that had outbreaks of avian influenza.

Negotiations are currently under way to resolve the Russian health concerns, with the goal of reaching agreement on new health certificates by August 1. Without such certificates, no U.S. poultry meat will be allowed entrance into Russia after August 1. Assuming an agreement is reached with this key importer, U.S. broiler exports in 2002 are projected to total 4.8 billion pounds, down more than 13 percent from a year ago, while turkey exports are forecast at 489 million pounds, marginally above 2001. The outlook is brighter for 2003 because of the expected removal of the Russian import ban. U.S. Broiler exports should total about 5.45 billion pounds, up 13 percent over 2002. Turkey exports in 2003 are forecast to be virtually unchanged at 490 million pounds.

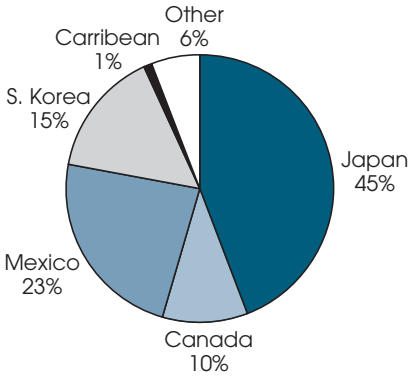
Cattle & Meat Imports Continue to Increase

U.S. live cattle imports are expected to increase and exports to decrease in both 2002 and 2003. Dryness and tighter feed grain supplies in Canada are expected to continue inducing movement of feeder cattle south to the U.S. At the same time, tight feed supplies in Canada have reduced demand for feeder cattle from the U.S. In 2003, sharply reduced U.S. supplies of beef and feeder cattle are expected to reduce cattle exports to Canada and to encourage imports of Canadian cattle.

Dry weather and financial stress among Mexican cattle producers will likely continue to encourage export of feeder cattle to the U.S. through 2003. U.S. imports of

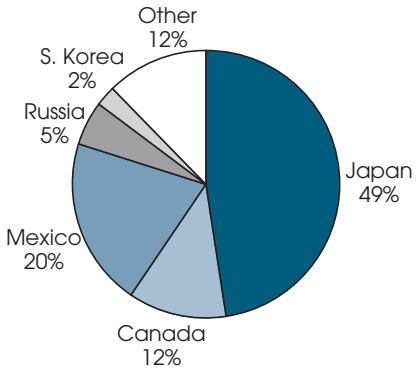
Which Countries Import the Most U.S. Meat and Poultry?

Beef: Japan, Mexico, South Korea



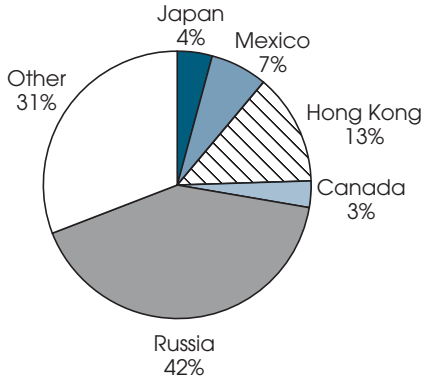
Based on U.S. exports of 2.3 billion pounds in 2001

Pork: Japan, Mexico, Canada



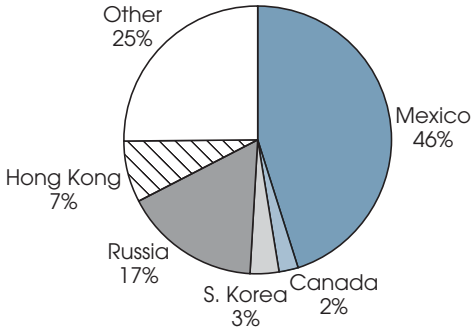
Based on U.S. exports of 1.6 billion pounds in 2001

Broiler Meat: Russia and Hong Kong



Based on U.S. exports of 5.5 billion pounds in 2001

Turkey Meat: Mexico and Russia



Based on U.S. exports of 488 million pounds in 2001

Economic Research Service, USDA

feeder cattle from Mexico have recently weakened because of improved pasture conditions in some parts of Mexico and lower feeder cattle prices in the U.S. However, imports should pick up again as feeder cattle prices turn higher in late 2002, and higher still in 2003, as the rebuilding phase of the U.S. cattle cycle begins. A possible limiting factor may be the imposition of more stringent U.S. standards on live cattle imports from regions of Mexico with a high incidence of tuberculosis as announced April 1, 2002.

U.S. hog imports should continue increasing with nearly 6 million live hogs—mostly feeder pigs—expected from Canada this year, and slightly more (6.1 million) in 2003. Hog movement to the U.S could expand further if expected increases in Canadian feedgrain supplies fail to materialize because of continued dry weather.

U.S. red meat imports are expected to increase 2-3 percent in 2002 and about 1 percent in 2003. Record beef imports in 2002 may grow even higher in 2003 as U.S. cow slaughter declines. Both Australia and New Zealand are expected to meet their tariff rate quotas in 2002 and 2003. South American fresh/frozen beef is not allowed into the U.S. because of restrictions related to FMD. While some increased imports are expected from New Zealand, most will be fresh/chilled and frozen product from Canada (not subject to tariff rate quotas) and heat-treated product from South America.

U.S. pork imports in 2002 will likely reach 960 million pounds, about 1 percent higher than 2001. Imports in 2003 are expected to be about equal to 2002 levels. Canada is the source of almost 80 percent of U.S. pork imports, reflecting the growing integration of North American meat and livestock sectors.

Lamb and mutton imports from Australia and New Zealand are expected to increase about 19 percent in 2002 to 174 million pounds, and to drop 7-8 percent in 2003. Facilitating imports in 2002 are a relatively strong dollar and free access to the U.S. market. The expected import drop in 2003 will come primarily from increased domestic supplies of lamb.

AO

Dale Leuck (202) 694-5186
djleuck@ers.usda.gov

Mildred Haley (202) 694-5176
mhaley@ers.usda.gov

Further information on the web:

ERS Cattle Briefing Room:
www.ers.usda.gov/briefing/cattle/

ERS Hogs Briefing Room:
www.ers.usda.gov/briefing/hogs/

ERS Poultry Briefing Room:
www.ers.usda.gov/briefing/poultry/

ERS Livestock, Dairy, and Poultry Outlook Report:
www.ers.usda.gov/publications/so/view.asp?f=livestock/ldp-mbb/

Briefs

Field Crops

Corn & Soybean Plantings Change Little From Spring Intentions

Planted area for the eight major U.S. field crops (corn, sorghum, barley, oats, soybeans, wheat, cotton, and rice) is expected to total 249.1 million acres in 2002, up from 248.2 million last year. Increases in corn, wheat, barley, and oats are partially offset by decreases in soybeans, cotton, rice, and sorghum. 2002 hay area is expected to increase more than 1 million acres to 64.7 million.

Estimates of planted and harvested area in USDA's *Acreage* report are based on surveys conducted during the first 2 weeks of June. Compared with USDA's March 28 *Prospective Plantings* report, which indicated farmers' crop intentions for spring plantings in 2002, planted area for the eight major field crops is up 782,000 acres due to increases in wheat, sorghum, and soybeans. Acreage for cotton, corn, oats, barley, and rice are down from March intentions.

Corn plantings in 2002 are estimated at 78.9 million acres, up more than 3 million acres from 2001 but only slightly lower than March intentions. Biotech varieties are expected to be grown on 34 percent of this corn area, up from 26 percent in 2001. The increase in corn acreage is caused by higher expected returns, crop rotation needs, and lower input costs for corn production. A year ago, high nitrogen fertilizer costs induced some farmers to shift acreage into soybeans, but this is not an issue in 2002. Also, the 2002 Farm Act raised corn loan rates and lowered soybean loan rates. Although the legislation didn't pass until after many farmers made planting decisions, the change in loan rates was widely expected.

Corn farmers in the 7 major states (Illinois, Indiana, Iowa, Minnesota, Nebraska, Ohio, and Wisconsin) planted 51.8 million acres, an increase of 3 percent from last year. Illinois, Minnesota, and Iowa showed the largest increases in planted acreage. Dry weather provided good planting conditions for farmers in the western Corn Belt and central Plains, but eastern Corn Belt farmers faced planting delays due to excessive moisture. Conditions were particularly bad in Indiana and Ohio. Many analysts expected corn area to be lower than estimated in the June report with more acreage planted to soybeans. Germination and emergence were hampered throughout the Corn Belt due to excess moisture in the east and cold temperatures in the west. As of July 15, 49 percent of the corn crop was rated good to excellent, down from 65 percent for the same period a year earlier.

Soybean acreage is down from last year for many of the same reasons that corn acreage is up. 2002 soybean area is estimated at 73 million acres, down 1.1 million from last year but virtually unchanged from March intentions. Biotech varieties are expected to be grown on 75 percent of this area, up from 68 percent in 2001. Total soybean acres were down in 2002 because of lower input costs for corn production and expectations for a lower loan rate relative to corn. Acreage decreases were mainly in the western Corn Belt, central Plains, Great Lake States, and Atlantic Coast. Acreage increased in the eastern Corn Belt, and across the South. Area would likely have been lower in the eastern Corn Belt, but excessive moisture made corn planting difficult and many farmers shifted to soybeans.

Total planted **wheat** area is estimated at 60 million acres in 2002, up less than 1 percent from 2001. Compared with intentions reported in the March *Prospective Planting* report, plantings are up more than 1 million acres for all wheat—up 286,000 acres for winter wheat, down 82,000 acres for Durum, and up 877,000 acres for other spring wheat. This follows a long-term trend of declining U.S. wheat area, particularly winter wheat. Producers plan to harvest 47.6 million wheat acres, down 2 percent from 2001. Drought conditions in the Plains are another important factor for the 2002 crop and will likely lead to greater abandonment. Partly because of increased abandonment, 2002 is forecast to have the smallest winter wheat harvested area since 1917.

Cotton plantings in 2002 are estimated at 14.4 million acres, down 1.4 million acres from a year earlier and 355,000 acres from March intentions. Biotech varieties are growing on an estimated 71 percent of this area, up from 69 percent in 2001. Low cotton prices relative to competing crops–especially corn and soybeans—are the main factor behind the acreage drop. Other important factors are changes in revenue insurance from a year earlier that make the crop insurance program less attractive for cotton, and uncertainty (at planting time) about payment limits associated with the 2002 Farm Act.

The main acreage reductions were in the Delta states, California, and Arizona. 2002 cotton acreage in the Delta (Arkansas, Louisiana, Mississippi, Missouri, and Tennessee) is estimated at 3.73 million acres, down 865,000 acres from a year earlier. 2002 California and Arizona acreage is estimated at 932,500 acres, down from nearly 1.2 million last year. Southeastern (Alabama, Florida, Georgia, North Carolina, South Carolina, and Virginia) cotton acreage is estimated at 3.57 million acres, down 1 percent from 2001. Acreage in Texas, Oklahoma, Kansas, and New Mexico is estimated at 6.19 million acres, down 3 percent from a year earlier.

U.S. **rice** plantings for 2002 were reported at 3.25 million acres, down 84,000 from a year earlier. Arkansas, the largest rice producing state, accounted for the bulk of the decline. Plantings were also reported smaller than a year earlier in Louisiana and Texas. In contrast, producers in California, Mississippi, and Missouri expanded rice acreage this year. Total U.S. rice plantings are down 72,000 acres from March intentions, with long grain—grown almost exclusively in the South—accounting for all of the decline. Estimated combined medium/short grain plantings were 35,000 acres higher than March intentions.

Long grain also accounts for the entire year-to-year decline in U.S. rice plantings. This is mainly due to very low long grain prices but relatively strong medium and short grain prices. Long grain prices

declined throughout the 2001/02 market year to the lowest point in 15 years. In contrast, medium/short grain prices have strengthened since August and are more than 40 percent higher than long grain prices. The June survey reported long grain plantings at 2.58 million acres, down 131,000 from a year earlier's near record. In contrast, combined medium/short grain plantings are estimated at 668,000 acres, an increase of 47,000 from 2001, with California accounting for almost all of the increase.

Sorghum area is estimated at 9.3 million acres in 2002, down 9 percent from a year earlier. Dry conditions are a partial explanation for low sorghum plantings this year, but more sorghum may be planted on acres where other crops failed if sufficient moisture is available. Acreage in Kansas and Texas, the largest producing states, are both expected to decline in 2002. Texas acreage is estimated at 3 million acres, down 500,000 from last year. Kansas acreage is estimated at 3.9 million acres, down 100,000 from 2001. Sorghum area harvested for grain is estimated at 7.9 million acres, down from 8.6 million last year. 2002 sorghum area is up 275,000 acres from the March intentions report. This increase is caused by more sorghum being planted in Texas and Kansas than earlier intentions, which was likely on land originally planted to wheat.

Barley acreage is estimated at 5 million acres, up 1.6 percent from last year's record low. North Dakota and Montana, the largest producing states, each increased 100,000 acres from last year. Planting is expected to be 1.6 million acres and 1.2 million acres in North Dakota and Montana, respectively. Barley planting is down 30,000 acres from March intentions. Cool May temperatures hindered development, although temperatures increased in June. As of June 23, 15 percent of the barley crop had headed compared with 20 percent the previous year—the 5-year average is 24 percent.

Oats area is estimated at 5.1 million acres, up 682,000 from a year earlier. High oats prices last year, brought on by low world supplies of high-quality milling oats, are behind this increase in planted area. Compared with the March intentions report, oats area is expected to be down nearly 1 percent. AO

William Chambers (202) 694-5312
chambers@ers.usda.gov

Allen Baker (202) 694-5290
albaker@ers.usda.gov

Want more info?

USDA's June *Acreage* report
http://usda.mannlib.cornell.edu/reports/nassr/field/pcp-bba/acrg0602.pdf

USDA's March 28 *Prospective Plantings* report
http://usda.mannlib.cornell.edu/reports/nassr/field/pcp-bbp/pspl0302.pdf

August Releases—National Agricultural Statistics Service

The following reports are issued electronically at 3 p.m. (ET) unless otherwise indicated.
www.ers.usda.gov/nass/pubs/pubs.htm

August

2 *Dairy Products Prices (8:30 a.m.)*
Milkfat Prices (8:30 a.m.)
Agricultural Land Values
Egg Products
Poultry Slaughter
5 *Dairy Products*
Crop Progress (4 p.m.)
6 *Weather - Crop Summary (noon)*
7 *Broiler Hatchery*
9 *Dairy Products Prices (8:30 a.m.)*
12 *Cotton Ginnings (8:30 a.m.)*
Crop Production (8:30 a.m.)
Crop Progress (4 p.m.)
13 *Weather - Crop Summary (noon)*
14 *Broiler Hatchery*
Turkey Hatchery
15 *Milk Production*
16 *Dairy Products Prices (8:30 a.m.)*
Milkfat Prices (8:30 a.m.)
Cattle on Feed
Farm Labor
Mushrooms
19 *Cold Storage*
Crop Progress (4 p.m.)
20 *Weather - Crop Summary (noon)*
Cranberries (tent.)
21 *Broiler Hatchery*
22 *U.S. and Canadian Cattle (noon)*
Catfish Processing
13 *Dairy Products Prices (8:30 a.m.)*
Chickens and Eggs
Livestock Slaughter
Turkeys Raised
Monthly Agnews
26 *Crop Progress (4 p.m.)*
27 *Weather - Crop Summary (noon)*
28 *Rice Stocks (8:30 a.m.)*
Broiler Hatchery
29 *Peanut Stocks and Processing*
30 *Dairy Products Prices (8:30 a.m.)*
Milkfat Prices (8:30 a.m.)
Agricultural Prices
Monthly Hogs and Pigs

Commodity Spotlight

USDA Photo: Tim McCabe

U.S. Wheat Output & Exports To Decline in 2002/03

Prospects for the smallest U.S. wheat exports in more than 30 years are dominating the 2002/03 outlook for U.S. wheat. Smaller U.S. supplies, shrinking global imports, and intense competition are combining to reduce U.S. export prospects.

Domestic use in 2002/03 is projected to be nearly the same as last year, as a 10-million-bushel increase in food use because of population growth is offset by reduced feed and residual use. Projected exports of 900 million bushels are down 60 million bushels from the 2001/02 forecast and would be the lowest since 1971/72 (610 million bushels). Record wheat production is expected in the European Union (EU), and large wheat supplies in the former Soviet Union are expected to maintain stiff export competition from the Black Sea region. With EU imports dropping because of increased import duties, world wheat trade is expected to be reduced in 2002/03, and the U.S. share is expected to be the lowest since comparable data were first compiled (1961/62).

Total U.S. wheat production is forecast down 11 percent from 2001/02 to 1,749 million bushels. The smaller wheat crop (209 million less) combined with the lowest carryin stocks since 1999/00 (104 million less) drops total 2002/03 supplies 313 million bushels (nearly 11 percent) below a year earlier.

Although total use is declining, it will exceed production plus imports and result in a further drop in U.S. ending stocks. Carryover stocks will fall below last year's level by 252 million bushels. However, bleak export prospects dampen price advantages from declining stocks. The 2002/03 price is projected to range from $2.75 to $3.35 per bushel, compared with an estimated $2.78 for 2001/02.

Lower Acreage & Yields to Cut Wheat Production Again

All wheat. For all wheat, total 2002 planted area is estimated at 60.1 million acres, of which 47.6 million will be harvested. Planted area is up 0.5 million acres from a year ago, but harvested area will be down from a year ago, by 1 million acres. Poor soil moisture is estimated to increase winter wheat abandonment in 2002 compared with 2001 and reduce average yield by 3.5 bushels to 36.7 bushels per acre.

Winter wheat. USDA forecasts 2002 U.S. winter wheat production at 1,178 million bushels, down 183 million bushels (13 percent) from 2001. This is the smallest output since 1971 and reflects lower harvested acreage and yield. Harvested area totals 29.8 million acres, down 1.5 million acres from 2001 and the lowest since 1917. The U.S. winter wheat yield is forecast at 39.6 bushels per acre, 3.9 bushels less than last year.

The largest class of winter wheat, hard red winter (HRW), is forecast at 634 million bushels, down 133 million bushels from 2001. This is the lowest since 1963/64 when 544 million bushels were produced. Production is down because HRW area is 1.1 million acres below last year to 19.8 million, and forecast yield is down 4.7 bushels per acre to 32.1 bushels.

Soft red winter (SRW) wheat, forecast at 341 million bushels, is down 59 million bushels because of reduced harvested area and a lower average yield. SRW harvested area is down 0.5 million acres to 6.7 million, and yield is forecast down 5 bushels per acre to 50.7 bushels in 2002.

White winter (WW) wheat is forecast up 8 million bushels at 203 million with higher yields and a slightly larger harvested area from last year. Forecast WW wheat yields are up 2.3 bushels from 2001 to 62.2 bushels per acre because of improved weather conditions.

Spring wheat. USDA forecasts 2002 U.S. spring wheat production (including durum) at 570 million bushels, down 26 million bushels, or 4 percent from 2001. This would be the smallest spring wheat output since the 1988 drought. Harvested area is up 0.5 million acres to 17.9 million acres—not enough to offset a 2.4-bushel decline in average yield from last year to 31.9 bushels per acre.

The largest spring wheat class, hard red spring (HRS), is forecast at 443 million bushels, down 32 million from 2001. Lower yields more that offset a 0.6-million increase in harvested area to 13.8 million acres. Forecast HRS yield is down 3.7 bushels per acre to 30.9 bushels.

Durum wheat, forecast at 84 million bushels, is up 0.6 million bushels from last year, as slightly higher average yield more than offset reduced harvested area.

Durum yield is forecast up 1.3 bushels per acre to 31.3 in 2002.

White spring (WS) wheat is forecast up 6 million bushels to 43 million, with sharply higher yields reinforced by a slight increase in harvested area from last year. Improved weather conditions put the forecast WS wheat yields at 51.7 bushels per acre, up 6.6 bushels from 2001.

Foreign Wheat Production To Increase

Foreign wheat production in 2002/03 is forecast at 533 million metric tons (mmt), up nearly 7 mmt from last year and the largest except for the 1997/98 record. For the first time, the EU wheat crop is forecast to be double the size of the U.S. crop. EU wheat production is forecast to reach a record 109 mmt in 2002/03, up 17 mmt from 2001/02, when excessive rains and flooding reduced area and production. EU internal wheat prices during planting were relatively strong compared with world traded prices, especially for good-quality wheat.

With more favorable planting conditions and payment incentives favoring wheat compared with oilseeds, EU wheat area planted last fall increased dramatically and is forecast up 9 percent in 2002/03. Generally favorable conditions have prevailed so far across most of France, Germany, the United Kingdom, and Spain. Though much of Southern Italy has been dry, average EU yields are expected to be a record over 6 metric tons per hectare (comparable U.S. average is 2.6 metric tons per hectare).

India's wheat crop is one of the first harvested in the Northern Hemisphere, with harvest starting in March. With government support prices much higher than world prices for similar wheat, increased area is reported. Production is forecast up 3 mmt to 72 mmt. Moreover, India's beginning wheat stocks are estimated up nearly 6 mmt, and storage facilities for government-owned grain are limited. With the high procurement price, the Indian Government is expected to make huge purchases in 2002/03, providing additional pressure to subsidize exports in order to move excess supplies onto the world market.

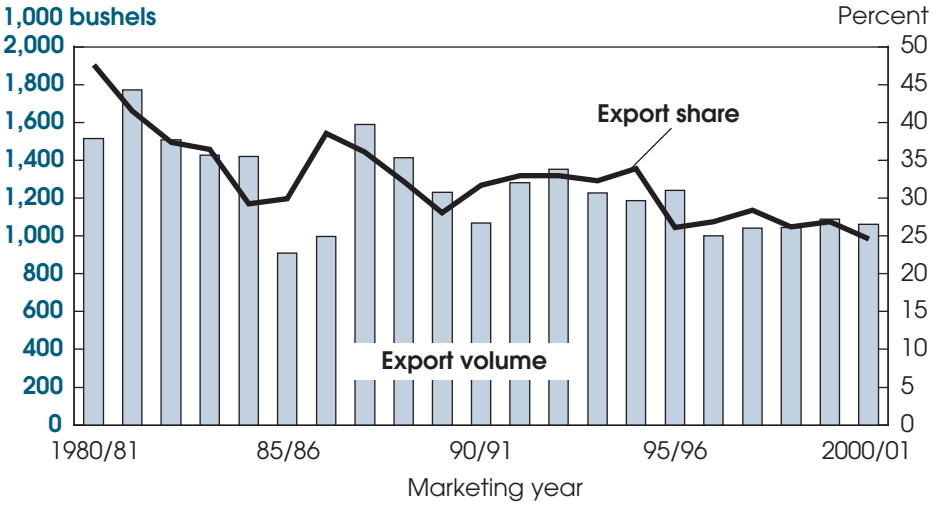
Wheat production in the Middle East is forecast up 5 mmt, mainly because more plentiful rains in Iran and Turkey are expected to boost yields. However, wheat production in North Africa is forecast down slightly, with dry conditions reducing yield prospects especially in Tunisia.

Wheat production in China is forecast down 2 mmt to 92 mmt. Surveys of planted wheat area by China's National Bureau of Statistics indicate a small decline. Yields are projected to be similar to drought-reduced levels of the last 2 years, because of dryness in some regions and increased plantings of higher quality but lower yielding varieties in response to price premiums. China's wheat supplies in 2002/03 are expected to be sharply lower because beginning stocks are forecast down 19 mmt to less than 38 mmt.

Production in the major export competitor countries is forecast up slightly in Canada, but down in Australia and Argentina. Because of dry soils at planting, Canada's wheat area is forecast down 2 percent, but yields are forecast to rebound from the previous year's drought, boosting production nearly 2 mmt. In Argentina, wheat area is declining because of reduced credit availability and a shortage of diesel fuel. Argentina's production is forecast down 1.5 mmt to 14 mmt. Australia, which had a large crop in 2001/02, suffered from early season dryness especially in the West, and in 2002/03 is expected to reduce wheat area and lower production by 1 mmt to 23 mmt.

Wheat production in the former Soviet Union in 2002/03 is forecast down 11 mmt to 80 mmt. Area is forecast up slightly, but yields are not expected to match last year's high level. Growing conditions have been generally favorable this winter; they were excellent last year. Even with a significant drop in forecast production, wheat supplies in 2002/03 are expected to increase because beginning stocks are forecast up nearly 14 mmt.

U.S. Share of Global Wheat Exports Continues to Fall



Economic Research Service, USDA

County Loan Rates Updated

USDA county loan rates for wheat have been updated to reflect recent market price relationships among counties. In this update, national loan rates for the 2002 wheat crops are differentiated by five classes of wheat: hard amber durum; hard red spring; hard red winter; soft red winter; and soft white wheat. This update is the first time USDA has differentiated loan rates by class of wheat, and is the most comprehensive update in 15 years. The changes are intended to reduce disparities in marketing loan benefits in local markets that have emerged in recent years.

Commodity Spotlight

The Farm Security & Rural Investment Act of 2002

Among the Act's highlights

- Alters the farm payment program and introduces counter-cyclical farm income support;
- expands conservation land retirement programs and emphasizes on-farm environmental practices;
- relaxes rules to make more borrowers eligible for Federal farm credit assistance;
- restores food stamp eligibility for legal immigrants;
- adds various commodities to those requiring country-of-origin labeling;
- introduces provisions on animal welfare.

Wheat-related highlights

- Increases national crop loan rates for wheat from $2.58 per bushel to $2.80 in 2002/03 and 2003/04, and $2.75 per bushel in 2004/05-2007/08;
- provides a direct payment of 52 cents per bushel;
- bases counter-cyclical payments for eligible production on target prices of $3.86 per bushel for the first 2 years and $3.92 per bushel thereafter;
- creates an incentive program to help develop marketing opportunities for hard white wheat;
- establishes marketing loans and loan deficiency payments (LDPs) for pulse crops providing new cropping opportunities for typical wheat producers;
- continues authority for LDPs on grazed wheat.

For details, see the ERS web site: www.ers.usda.gov/features/farmbill/

In Eastern Europe, production is forecast down 5 mmt because yields are not expected to match the previous year's exceptional levels. With the forecast increase in Eastern Europe's beginning stocks being less than the decline in production, a reduction in 2002/03 wheat supplies is expected.

World wheat disappearance in 2002/03 is projected to increase 1.1 percent to a record 594 mmt, compared with the small decline estimated for 2001/02. Population growth accounts for most of the increase, and ample supplies of low-quality wheat are also expected to maintain the use of wheat for feed. The EU, with a much larger crop, is forecast to increase its feed use by nearly 2 mmt to 49 mmt.

World wheat production is forecast at about 581 mmt in 2002/03, and with total use projected to exceed 594 mmt, global ending stocks will drop nearly 14 mmt from the previous year. Non-U.S. wheat stocks are expected to decline nearly 7 mmt, with significant increases in India, the EU, and the former Soviet Union, partly offsetting the 17-mmt drop in Chinese stocks.

World Wheat Trade To Decline Slightly

World wheat trade in 2002/03 (July/June international marketing year) is forecast at less than 104 mmt, down more than 3 percent from the previous year. The most significant drop in imports is projected for the EU. In 2001/02, the EU emerged as the world's largest wheat importer, even excluding intra-EU trade. High internal prices and low import duties boosted imports to a forecast 9 mmt, almost triple the previous year. Inexpensive wheat from the Black Sea region moved into the EU in large volumes. In 2002/03, with a larger crop and increased import duties, EU wheat imports are expected to drop to 3.5 mmt. EU imports will be largely limited to the traditional demand for high-quality wheat and to some access granted to Eastern European countries that are in the process of joining the EU.

Iran is expected to reduce imports by 1 mmt in 2002/03 to 5 mmt because of increased production. In contrast, China is expected to increase wheat imports more than 50 percent to 2 mmt as stocks decline and membership in the World Trade Organization facilitates trade. Many other countries are expected to increase imports slightly in 2002/03 as populations increase, but not by enough to offset the drop in EU imports.

Intense Export Competition To Erode U.S. Share

EU wheat exports in 2002/03 are expected to increase 35 percent to 13.5 mmt. Increased production is expected to make EU prices more competitive with wheat from the Black Sea region and India.

India, with burgeoning wheat supplies, is expected to boost 2002/03 exports by a third to 4 mmt. Even with aggressive export subsidies, the government will not reach its goal of exporting 10 mmt of wheat. Turkey is also expected to increase wheat exports 1 mmt, the result of a larger crop.

Kazakhstan's improved transportation infrastructure is expected to help increase its wheat exports to Iran, and a rise of 0.5 mmt in exports is forecast in 2002/03. Australia is expected to remain the world's second-largest wheat exporter, boosting exports 0.5 mmt to a forecast 17 mmt.

Reduced production and higher EU import duties are expected to drop Ukraine's wheat exports 2.5 mmt to 3.5 mmt in 2002/03, and Eastern Europe's exports are expected to decline 1.2 mmt to less than 3 mmt. Canada's wheat

exports are forecast down 1.5 mmt to 15 mmt because of relatively tight supplies. For Argentina, reduced production will offset a favorable exchange rate and exports are projected down 2 mmt in 2002/03.

U.S. wheat exports in 2002/03 (July-June) are forecast down 2 mmt to 24.5 mmt, the lowest since 1971/72. Reduced production is expected to maintain U.S. prices high enough to limit export potential. With world wheat trade expected to decline in 2002/03, and increased production by several competing exporters, U.S. wheat will face intense competition, particularly in North Africa and the Middle East. This key wheat-importing region includes Egypt, which in recent years has been the largest importer of U.S. wheat. Wheat shipped from the Black Sea and the EU has lower transport costs than wheat from the U.S. While the U.S. is expected to remain the largest global wheat exporter, its share of global exports is forecast at less than 23 percent, the lowest forecast share since comparable data have been compiled. AO

Gary Vocke (202) 694-5285
gvocke@ers.usda.gov

Edward Allen (202) 694-5288
ewallen@ers.usda.gov

For more information:
ERS wheat briefing room
www.ers.usda.gov/briefing/wheat/

Commodity Spotlight

USDA Photo: Ken Hammond

Is There a Tobacco Quota Buyout in the Future?

During the current session of Congress, several tobacco buyout bills have been submitted that would modify the tobacco program and provide for purchasing quota from growers or other quota holders. Quota represents the pounds or acreage of tobacco growers are allowed to market during a season. Quota can be owned by a non-farmer and rented to an active producer, or owned by a producer outright.

The bills come at a critical time for U.S. growers. During the last two marketing seasons, contracting has quickly become the dominant means of marketing tobacco, placing unprecedented strains on the tobacco program. The income-enhancing price support program functions in the context of an auction where USDA assigns grades that are linked to differing levels of price support. However, contract sales bypass the auction warehouse and are not eligible for price supports.

Additionally, because of declining demand for tobacco products and U.S. tobacco overseas, and greater use of imported tobacco, quotas (which are based on demand) have declined markedly during the past five seasons. With less quota available, quota rental rates and sales prices rise. Growers trying to maintain economic scales of operation face increasing production costs.

For these reasons, grower interest in a buyout is at an all-time high, and quota owners see an opportunity to exit with a generous payment. Some growers seem ready to give up the security of the price support safety net for greater freedom in making production decisions and marketing directly to leaf dealers and manufacturers. Growers who lease quota anticipate a buyout payment and elimination of quota rent payments in the future.

Most tobacco has been grown under a quota since the 1930s. The quota, combined with a price support program, is intended to reduce fluctuations in tobacco supply and price, stabilizing grower income.

A buyout has generally involved a voluntary or mandatory purchase of the quota for a given price over a period of time. Tobacco quota buyouts have been discussed for many years, but no agreement has been reached on the structure of a buyout and how to pay for it. However, during the past few growing seasons, changes in the way tobacco is marketed have reinvigorated the buyout discussion and new proposals have been put forward.

The first significant proposal for a quota buyout came from Senators John McCain (R-AZ) and Harold Ford (D-TN) in the LEAF act of 1997, which would have paid quota holders and growers for their quota, modified the USDA tobacco program, and had a significant economic development component.

Other proposals surfaced before the Master Settlement Agreement (MSA) was signed in November 1998 (*AO* January-February 2002). The Tobacco Transition Act sponsored by Senator Richard Lugar (R-IN) would have compensated quota owners and tenants and ended the quota and price support programs. It also included community development grants.

Other proposals included buyouts for quota owners and transition payments for growers, and would either terminate or privatize the tobacco program. Some proposals had a community development component. Participation in the buyouts was not mandatory in all proposals. The MSA reduced the pace of buyout proposals, as it addressed many of the objectives of the earlier proposals (restrictions on advertising, sales, and where people can smoke).

In 2000, the President's Commission on Tobacco Growers and Health released its report, again proposing a quota buyout, modification of the tobacco program, economic development programs for tobacco growing areas, and greater regulation of tobacco products.

The two proposals discussed in detail below would enable tobacco growers to continue production, and both would modify the tobacco program and provide for quota buyouts. The McIntyre-Davis proposal would foster economic development in tobacco producing areas. The Goode-Boucher-Jones proposal would create a new mechanism for ensuring production/marketing rights.

Two other buyout proposals have recently been submitted in Congress. Rep. Ernie Fletcher's (R-KY) bill, known as the "Tobacco Equity Elimination Act of 2002," and Senator Max Cleland's (D-GA) bill, the "Aid to Tobacco Dependent Communities Act of 2002," both contain quota buyout provisions and would modi-

fy the tobacco program in ways similar to the Goode-Boucher-Jones proposal. These bills would each provide $5 million annually for 10 years to fund a Center for Tobacco-Dependent Communities, which would help producers and communities diversify their economic base.

McIntyre-Davis Proposal

A bill submitted to Congress by Representatives Mike McIntyre (D-NC) and Tom Davis (R-VA), known as the "Tobacco Livelihood and Economic Assistance for Our Farmers Act of 2002" (H.R. 3940), has these main features:

Termination of quota, price support, and no-net-cost programs. The current tobacco program would end.

Tobacco production limited to current production regions. Beginning in 2003, production of tobacco subject to quotas in 2002 would be limited to counties where that type of tobacco was previously grown.

Payments to quota holders. Quota holders (owners) would receive $8 per pound for their quota, paid in five equal annual installments, beginning in 2003. The volume upon which the payment is to be made is the basic quota for the 1998 marketing year. In the case of tobacco under allotments, the volume is based on the 1998 allotment multiplied by the average yield for that county.

Payments to active producers. Active producers would receive $4 per pound of tobacco produced in 2001, paid in five equal annual installments, beginning in 2003.

Establishment of a Tobacco Quality Board. The Tobacco Quality Board would consist of five grower representatives, five manufacturer representatives, and one USDA representative. Members are appointed by the Secretary of Agriculture. The Board's duties would be:

- determining and describing characteristics of U.S.-produced and imported tobaccos;
- collecting and evaluating concerns and problems with U.S. tobacco expressed by buyers and manufacturers;
- monitoring the physical and chemical integrity of U.S.-produced and imported tobacco, and
- reporting to the Secretary conditions that inhibit improvements in U.S. tobacco quality, and recommending regulatory solutions to tobacco quality issues.

Product user fees paid by manufacturers to fund Food and Drug Administration (FDA) regulation of tobacco products and quota buyout. A base fee, adjusted annually by change in sales, would be assessed on manufacturers and importers of tobacco products. Initially, the fee would total $2.3 billion annually for all tobacco products. For cigarettes, the fee equals about 10 cents per pack. Within product types, individual manufacturers or importers would be assessed pro rata based on market share. Total cost of the buyout is about $16 billion. Fifteen percent of the fee would go to FDA to fund regulation of tobacco products, and 85 percent of the fee would go to USDA to fund buyout payments or programs related to tobacco products.

FDA regulation of tobacco products.

- Manufacturers would be required to disclose on each package of tobacco product the percentage of domestic and foreign tobacco contained in the product.
- FDA provisions would not apply to tobacco leaf not in possession of a manufacturer, nor would they apply to tobacco growers, warehouses, or tobacco cooperatives.
- FDA would have no authority whatsoever to enter onto a farm without written consent of the producer/owner.

Unlike some proposals from 1998 and the Tobacco Commission recommendations, the McIntyre-Davis proposal contains no provisions for economic development in tobacco-growing regions.

Goode-Boucher-Jones Proposal

In May 2002, three legislators—Virgil Goode (I-VA), Richard Boucher (D-VA), and Walter Jones (R-NC)—introduced a bill in the House titled "Tobacco Market Transaction Act of 2002" (H.R. 4753). The purposes of the bill are to:

- terminate the tobacco program,
- replace it with a federally chartered corporation to ensure the stability of the price and supply of U.S. tobacco,
- compensate quota holders for their loss of quota, and
- provide transition assistance for current producers of tobacco.

The bill also seeks to improve the competitiveness of U.S.-grown tobacco in the world market with buyout provisions similar to those in the MacIntyre-Davis bill but with no proposed funding source and no FDA regulation. The bill would replace the current quota program with a licensing program to control tobacco production and would create a Tobacco Community Revitalization Trust Fund to compensate quota owners and growers in a way similar to the McIntyre-Davis bill.

The main features of this bill are:

Termination of the current tobacco program. Tobacco held by producer cooperatives is to be disposed of in an orderly fashion. Producer cooperatives would repay price support loans within 1 year. Grower obligations under the current program end.

Price support continued. The Corporation, in consultation with the cooperative associations and the Secretary of Agriculture, would enter into agreements with the tobacco loan associations to:

- establish a base price for tobacco based on the cost of producing that type of tobacco;
- arrange for financing and the administration of a base price for tobacco; and

Commodity Spotlight

The Federal Tobacco Program

The USDA tobacco program consists of marketing quotas and price supports. The program is intended to stabilize and raise prices. Excluding the 1939 crops, marketing quotas have been approved and were in effect since 1938 for each crop of flue-cured, burley, and dark tobacco. Cigar binder and Ohio filler crops first came under quotas in 1951. Price supports have never applied to Pennsylvania filler and last applied to the Maryland crop in 1965 and the Connecticut-Massachusetts binder crop in 1983.

Marketing quotas determine the quantity of tobacco that may be marketed by growers. For flue-cured and burley, which account for over 90 percent of U.S. production, quotas are determined by a three-part formula. The quota formula is the sum, in pounds of tobacco, of:

- The amount manufacturers intend to use in the following crop year, plus
- 3-year average exports, plus
- reserve stock adjustment.

The Secretary of Agriculture has the authority to raise or lower the sum by 3 percent. The result is the basic quota. The national basic quota is divided proportionally between the growers of that type of tobacco according to the amount of quota owned by each. Each grower's share is then adjusted by the accumulated over- and under-marketings from previous seasons. This is the effective quota, or the amount growers may actually market without penalty.(Growers can carry forward a maximum of 3 percent over or under their quota each year.)

Other rules of the quota program limit lease and transfer of quota and restrict sale of quota to within counties in most areas. If a producer's quota was not planted for at least 2 out of the 3 previous years, it reverts to USDA for redistribution.

The **price support program** operates in conjunction with quotas. Price supports (also known as loan rates) for flue-cured and burley are based on the previous year's price support adjusted by the change in the cost of production, and the change in the previous 5-year-average price, omitting the high and low years. Each different grade of tobacco has its own price support level or loan rate. Grade loan rates vary depending on the desirability of a given grade of tobacco—higher quality tobacco has higher grade loan rates. The weighted average of all grade loan rates for a type of tobacco is the loan rate for that type of tobacco.

Prior to being auctioned, each pile of supported tobacco is assigned a grade by a USDA inspector. If the auction bids for that pile are below the grade loan rate, the grower may turn the tobacco over to the cooperative and receive payment equal to the grade loan rate for his lot of tobacco. The cooperative then processes, packs, and stores the tobacco until a buyer can be found.

To finance its operation, the cooperative borrows money from the Commodity Credit Corporation (CCC). The cooperative must repay the CCC the expenses associated with its support operation. If the costs of processing, storing, and selling the tobacco is greater than the selling price, the deficit is paid through an assessment levied on each pound of tobacco sold and paid by buyers and sellers at the time the tobacco is sold. The no-net-cost program ensures that the costs of the tobacco program are not borne by U.S. taxpayers, but by the tobacco growers themselves.

However, CCC loans to the flue-cured, burley, and cigar binder cooperatives resulting from a poor-quality crop in 1999 were forgiven as a result of special legislation in 2000 and 2001. The CCC took title to the tobacco and forgave the loans to the cooperatives at a cost of $660 million to the U.S. Treasury.

- receive, process, store, and sell any domestically produced tobacco received as collateral for a base price loan.

Quota buyout and grower transition payments.

- Compensate quota holders for the loss of tobacco quota asset value ($8 per pound, based on 2002 quota or the average of the 1997-99 marketing years' quota).
- Provide transition assistance for active tobacco producers ($4 per pound, based on 2002 quota or the average of the 1997-99 marketing years' quota).

Establishment of the federally chartered Tobacco Production Control Corporation. The Corporation will be governed by a board consisting of 25 members, including:

- the Secretary of Agriculture, who shall appoint:
  - two members from each state that produces more than 250 million pounds of tobacco;
  - one member from each state that produces more than 50 million pounds, but less than 250 million pounds, of tobacco; and
  - one member, to be appointed on a rotating basis, from a state that produces less than 50 million pounds of tobacco.
  - four members representing domestic tobacco product manufacturers, except that:
    - no manufacturer may have more than one member on the Board;

  - at least one of the members must be from a domestic smokeless tobacco manufacturer; and
  - one member must be from a domestic cigarette manufacturer that comprises less than 5 percent of domestic cigarette sales, or a cigar manufacturer, or a pipe tobacco manufacturer on a rotating basis.
- one member representing domestic export leaf dealers.
- one member to be responsible for operating the quality assurance system of the Corporation.

- three members appointed by flue-cured tobacco associations and two members appointed by burley tobacco associations.
- one member appointed by tobacco associations other than flue-cured and burley, on a rotating basis.
- three members appointed by the Secretary of Health and Human Services, representing public health interests.

Licenses to market tobacco issued to current tobacco producers. The Corporation would give licenses to growers who produced tobacco in the 2001 or 2002 crop year, which would permit them to market a similar quantity of tobacco in the 2003 crop year and thereafter.

Inspection and grading of domestic and imported tobacco. A system would be set up to grade and inspect tobacco.

Increase competitiveness of domestically produced tobacco. Costs associated with buying or leasing quota would be eliminated.

Transition payments would be considered for other persons adversely and directly affected by termination of the Federal tobacco program. These include graders, inspectors, warehousemen, auctioneers, equipment dealers, and other persons.

After 3 years, the program would be subject to a referendum at the request of one-third of the growers of any specific kind of tobacco. If half of the growers vote to end the license program, another referendum would be held a year later. If half of the growers again vote against the program, the program is terminated. The Corporation may hold referenda at any time to determine the continued existence of the program, or other matters regarding the program.

Implications for Producers

Both of these buyout proposals contain provisions that enable tobacco producers to continue to grow tobacco. Growers benefit from transition payments and continued restrictions on the right to market tobacco. The McIntyre-Davis bill pays growers $4 per pound of quota and restricts production to counties that previously produced tobacco. The Goode-Boucher-Jones bill also pays growers $4 per pound of quota and restricts production through licenses issued to current producers. The Goode-Boucher-Jones bill also provides for price support through the Tobacco Production Control Corporation in conjunction with existing cooperatives.

Unlike the buyout in Maryland, the purpose of these proposals is not to restrict tobacco production. In Maryland, buyout participants had to promise never to grow tobacco again.

One purpose of a quota buyout is to eliminate the equity inherent in the "right" to grow tobacco (i.e., own quota) so that the producer actually growing the tobacco is the only possible beneficiary of the right to grow it. This eliminates quota as a factor in the cost of producing tobacco, lowering overall costs and increasing competitiveness. Currently, a producer who also owns quota does not pay himself rent, but there is an opportunity cost to holding quota because it has intrinsic value. A grower who rents the quota he grows must pay the owner, boosting his cost. When the cost of producing tobacco is inflated by the value of the right to grow it, it is more difficult for U.S. producers to be competitive against foreign tobaccos. The proposals that have been submitted would eliminate the equity issues associated with quota. AO

Thomas Capehart (202) 694-5311
thomasc@ers.usda.gov

Visit the Tobacco Briefing Room

On the Economic Research Service website
www.ers.usda.gov/Briefing/Tobacco/

Resources & Environment

Rural Residential Land Use: Tracking Its Growth

Photo courtesy of the New Jersey Office of State Planning

Among the most rapidly growing land uses in the U.S. is land for rural residences. Between 1980 and 1997, residential land use in rural areas increased more rapidly than in urban areas, not only in percentage terms but also in absolute numbers: 1 million acres per year compared with 420,000 acres. While land in residential use in rural areas is a small proportion of total U.S. land use, this phenomenon has implications for farmland prices and the availability of land for agriculture and forestry, and can affect rural amenities and the rural environment in positive and/or negative ways.

Residential Land in Rural Areas Is Almost Double the Urban Residential Acreage

All land is categorized as either urban or rural. Within the urban and rural categories are residential and nonresidential land. The rural nonresidential category is by far the largest, accounting for over 2.1 billion acres of land in 1997, and includes cropland, forestland, pasture and range, and other miscellaneous uses.

Residential area is broadly defined as the land or lots upon which housing units are situated. Of the estimated 109 million acres of residential land in 1997—the most recent estimate comparable to other published sources—36 million acres were located in urban areas and 73 million in rural areas. The combined increase in urban area and rural residential use resulted in a 2.1-million-acre annual decrease in other rural uses, from 1980 to 1997.

Lot Sizes of Rural Residences Tend to Be Very Large

One factor in the relatively greater increase in rural residential land use is that it is generally land-extensive compared with the land-intensive residential use in urban areas. Rural residential lots, while fewer in number than urban lots, tend to be larger, averaging nearly 3 acres per household, compared with less than a half acre per household in urban residential areas.

Forty-four million acres, 60 percent of all rural residential lands, are in the largest lot-size category, over 10 acres. Rural land in this category is 3 1/2 times as large as the area of urban land in this category. The wide acreage disparity between rural and urban large-lot categories is likely attributable to relative land values—lower land prices in rural areas make large lots more affordable.

While the amount of residential land in the largest lot-size category, both urban and rural, is far greater than the amount in other categories, the corresponding number of household units in that category is relatively small. In urban areas in 1997, just 1 million households occupied 12 million acres of urban residential land in the largest lot size. In contrast, in the smallest lot size, less than 1/8 acre, 38 million households accounted for only 3 million acres.

In rural areas this pattern also holds. Less than 3 million households accounted for 44 million acres in the largest lot-size category, while 5 million households resided on only 300,000 acres in the smallest lot-size category.

Residential Land Use Is Growing Faster in Rural Than in Urban Areas

	1980		1997		Annual change			
Area	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
	- - - - - - - - Million acres - - - - - - - -				Million acres		Percent	
Residential	29	56	36	73	0.42	1.03	1.44	1.84
Non-residential	18	2,160	30	2,124	0.66	-2.10	3.57	-0.10

ERS estimates based on American Housing Survey (AHS), U.S. Department of Commerce and the U.S. Department of Housing and Urban Development.

Economic Research Service, USDA

Defining the Terms

Urban area consists of cities, towns, and Census-designated places of 2,500 or more persons and areas with populations of 50,000 or more—central cities and their adjacent densely settled surrounding "urban fringe." Within urban areas are residential uses and concentrations of nonresidential uses such as commercial, industrial, and institutional land; office complexes; urban streets and roads; major airports; urban parks and recreational areas; and other land within urban-defined areas. The definition has changed little from decade to decade during the last 40 years. Portions of extended cities that are essentially rural in character are excluded.

Rural area covers all land that is not urban.

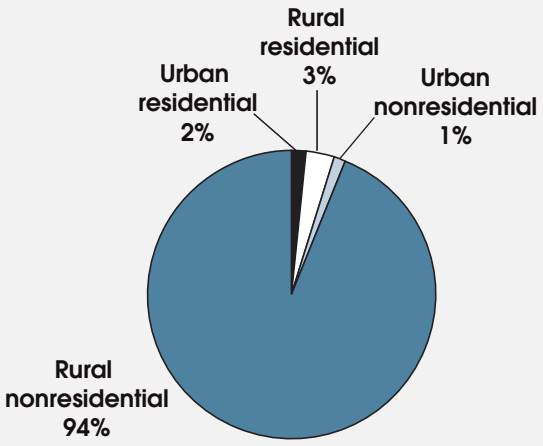
Residential area is estimated from American Housing Survey (AHS) lot-size data for housing units. Sample-based responses, expanded to area totals, are published in the AHS every 2 years. These data are collected for both urban and rural areas. The data set includes housing lots on farms (removed for this study). The AHS includes housing units by lot size from 1980.

Urban residential is an estimate of the residential component of urban land that shows how much land is used for housing in urban areas versus land for all other urban purposes, such as commercial and industrial sites, institutional uses, urban parks, and other non-housing urban uses.

Rural residential is an estimate of land used for residences in rural areas. Rural residential land includes hobby farms, ranchettes, and housing units on rural lots. In many cases, rural residential development involves the subdivision of larger parcels, including farms.

Developed land generally includes both urban and rural residential uses, as well as other urban uses and rural transportation uses.

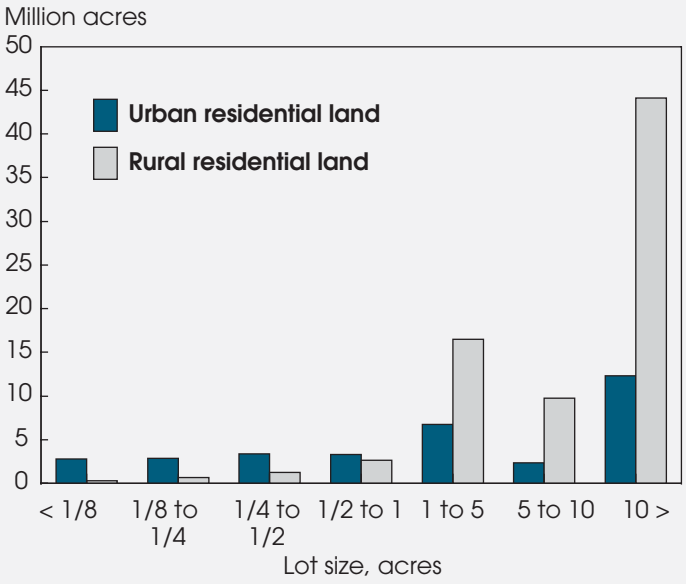
Rural Residential Land Use Exceeds Urban Residential



ERS estimates based on 1997 American Housing Survey and ERS Major Land Use data.

Economic Research Service, USDA

Large Size Lots Account for the Bulk of Residential Land*



*ERS estimates based on 1997 American Housing Survey data. Farm housing area excluded.

Economic Research Service, USDA

Rural Residential Area Is a Small but Growing Proportion of U.S. Land Use

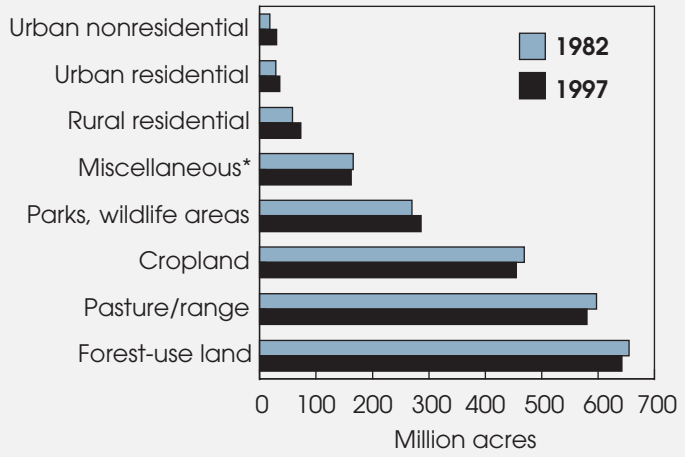
Estimates of major land uses by USDA's Economic Research Service (ERS) suggest that rural residential land has increased substantially, by 31 percent, from 1980 to 1997. In contrast, all the major rural nonresidential uses decreased slightly—none by more than 3 percent. (Parks and wildlife uses in rural areas increased by 6 percent.)

Concerns about the effects of land conversion to all developed uses, including loss of rural land and open space, traffic congestion, sprawl, and loss of rural amenities, arise even though conversions are a relatively small part of the area of cropland, pasture, range, and forest uses from which they are converted.

Urban area, the traditional measurement used to describe the urbanization process, is a relatively small part of total land use in the U.S. (less than 3 percent in 1997), but is growing rapidly. A significant portion of the Census Bureau-defined urban area is used for residential purposes. However, there is also an increas-

Resources & Environment

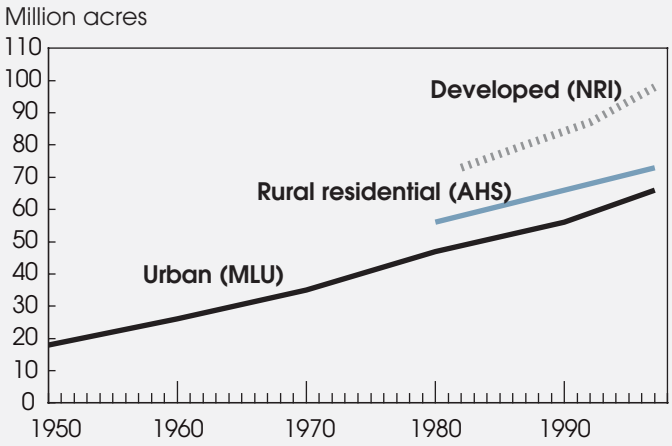
Residential Land Use Is Growing in Both Rural And Urban Areas



*Marshes, swamps, bare rock areas, deserts, and unclassified uses.
ERS estimates based on American Housing Survey and ERS Major Land Use historic data series.

Economic Research Service, USDA

Multiple Data Sources Show a Rise in Developed Uses of Land



ERS estimates based on National Resources Inventory, American Housing Survey, and Major Land Use series.

Economic Research Service, USDA

ing awareness of the magnitude of rural non-farm residential development. Rural residential land accounts for slightly over 3 percent of U.S. land use.

Alternative Data Sources Confirm Increased Rate of Developed Uses

Different data sources use different concepts, methods, and terms in measuring land conversion from cropland, forest, and other open, rural uses to urban and rural developed uses. Estimated annual rates of increase in developed uses differ by time period and data source. The magnitudes of the estimated changes among three primary data sources vary because of differences in definitions, sampling techniques, and sampling errors.

The rates of annual increase vary from 0.8 million acres per year from 1950 to 1980, to an estimated 1.4 million acres per year during 1990-97 for urban area as measured by the Census and the ERS Major Land Use series. The National Resources Inventory (NRI) indicates that the rise in developed land was 1.3 million acres per year for the 1982-87 period and 2.2 million per year in1992-97. Total 1997 NRI developed acreage was 98 million, up from 73 million acres in 1982. The American Housing Survey (AHS) estimate of 109 million acres of total residential land is larger than NRI developed land, probably due to differences in definitions and survey sampling procedures.

All three data sources show increases in developed uses in the 1990s, although the magnitude varies. Growth can be attributed partly to long periods of peace and economic prosperity in the U.S. since 1990. Higher incomes, low interest rates, and minimal inflation made bigger homes and larger lots more affordable.

Three Data Sources on Urban, Developed, & Residential Land

- Bureau of the Census, U.S. Department of Commerce, measures "**urban area**" every 10 years, coincident with the U.S. Census of Population. USDA's Economic Research Service uses the Census measure in its Major Land Use (MLU) series.
- Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture, measures "**developed area**," including urban, rural transportation, and other components, at 5-year intervals as part of the National Resources Inventory (NRI). (The NRI is being converted to an annual cycle.)
- U.S. Department of Housing and Urban Development (HUD) and the U.S. Bureau of the Census include lot sizes in the American Housing Survey (AHS), which is the basis of "**residential area**" estimates. American Housing Surveys are conducted every 2 years.

Why is Rural Residential Area Important? What Are the impacts?

Competition for rural land drives up prices. Decreasing costs of transportation and communication, along with higher incomes, encourage development of rural residential lots. Advanced telecommunications capabilities, such as the Internet and cable, are becoming available in many areas of the country, making it easier to work in usually urban-oriented jobs far from urban centers.

As this expansion occurs, competition for rural land increases. ERS research has shown that development, including rural residential development, has a significant influence on rural land

prices. When development spreads to rural areas, the price of farmland is often driven above its economic value for farm use. In states where farmland is in great demand for conversion to developed and rural residential uses, a relatively large proportion of the market value of farmland is attributable to nonfarm demand.

Land converted to rural residences slightly reduces availability for agriculture and forestry uses. Several studies have shown that once land is converted to developed uses it tends to remain in those uses. An ERS study found this applies to both the residential and nonresidential components of developed area. That is, the shift in use is generally irreversible and may reduce future land availability for food and fiber production. At present, however, the effects of land conversion on aggregate food and fiber production are minimal, as the area converted is a small fraction of total rural area. Since rural residential land includes large isolated tracts, it may not be as irreversible as urban land, but there are no comparable studies.

National averages may mask significant effects at state and local levels. New Jersey, Maryland, and Massachusetts, for example, have experienced heavy development pressures, which have led to the establishment of various land protection programs. Land conversion, in general, may affect the supply of rural amenities such as open space, clean air, and rural lifestyles, and may produce fragmented development patterns. Other environmental challenges, including decreased soil quality, wildlife habitat, and water and air quality, may follow rural residential growth.

In summary, urban and rural residential areas have increased significantly in the last several decades. These increases meant some reductions in cropland, pasture, range, miscellaneous, and forest uses. Rural residential lots tend to be much larger than housing lots in urban areas. Conversion of land to developed uses in urban areas tends to be irreversible. The extent to which rural residential land is irreversible is also likely high, but has not been studied. Further research is needed to address the potential effects of increasing rural residential land use on future food and fiber production, the environment, wildlife habitat, and water and air quality. AO

Marlow Vesterby (202)694-5528
vesterby@ers.usda.gov
Kenneth S. Krupa (202) 694-5521
kkrupa@ers.usda.gov

For further information:

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See also on the ERS web site: "Urban Development, Land Use, and Agriculture"
www.ers.usda.gov/features/sprawl/

Technology on the Farm

. . . in upcoming issues of *Agricultural Outlook*

Adoption of bioengineered crops. USDA survey data show the extent of adoption by U.S. farmers, the factors affecting their adoption, and the impacts on input use and net returns to farmers.

Technology in 21st-century agriculture. Technology has made U.S. agriculture competitive in world markets. Sharing technology could lead to expanded markets for U.S. value-added commodities.

Precision agriculture. While its adoption is less rapid than for some other new technologies, precision agriculture could change the way farmers manage their resources for production.

Organic agriculture. What can we learn from the latest data on ag production that is certified organic under the new USDA seal?

FAO Photo

The African Growth & Opportunity Act: How Much Opportunity?

For Sub-Saharan Africa (SSA), trade could play a crucial role in development, both economically and politically. Economically, trade offers short- and long-term opportunities to improve economic efficiency and raise incomes. Politically, trade also can spur domestic reforms which would lead to greater stability and peace.

To help create incentives for SSA countries to implement economic reforms and contribute to improved market opportunities and stronger commercial ties to U.S. companies, Congress passed the African Growth and Opportunity Act (AGOA) in May 2000 as part of the Trade and Development Act of 2000. AGOA provides preferential access to U.S. markets for eligible products (1,853 tariff lines) from designated Sub-Saharan countries and improved access to credit and technical expertise.

The President may designate SSA countries as eligible to receive the benefits of the Act if they are making progress in such areas as:

- establishing market-based economies,
- democratizing government,
- eliminating barriers to U.S. trade and investment,
- combating corruption,
- increasing access to health care and education, and
- protecting human rights.

However, progress in each area is not a requirement for AGOA eligibility. Currently, there are 36 AGOA-eligible countries. Eligibility is reviewed annually.

AGOA allows duty- and quota-free market access for virtually all products as long as they are produced in and/or imported from a beneficiary Sub-Saharan African country. The exceptions include fabrics and yarns that are not parts of finished apparel products, and a few sensitive agricultural products.

AGOA grants the most liberal access to the U.S. market available to any country or region except for countries with which the U.S. has a free trade agreement. It has the potential to be more comprehensive with respect to trade provisions than the European Union's (EU) Lome agreement that provides duty-free status for agricultural goods produced in African, Caribbean, and Pacific countries.

The Role of Agricultural Commodities

The European Union (EU) is the largest market for SSA exports, with a 37 percent share. However, the U.S. is the largest single-country market, with 27 percent in 2000. The United Kingdom had a 7 percent share. The U.S. imported $7.6 billion (duty-free) under AGOA in 2001, which equaled more than a third of the value of total U.S. imports from the region. Ninety percent of the imports were petroleum products and 5 percent were apparel. Three countries—Nigeria, Gabon, and South Africa—received 93 percent of the benefits.

Imports from the 36 AGOA-eligible countries were down 10 percent from 2000, reflecting the 15-percent drop in oil prices between 2000 and 2001. However, when crude oil and precious metals and stones are excluded, U.S. imports from these countries rose 11 percent from 2000.

While oil dominates regional export values at the aggregate level, only a few countries in the region export oil (i.e., Nigeria, Cameroon, Gabon, and Angola). Agricultural commodities, however, are vital to the economic development and food security of the entire region. Agriculture contributes roughly 35 percent of the region's gross domestic product (GDP), more than for any other region in the world, and contributes about 25 percent of total export earnings.

More than half the SSA countries depend on three out of four primary commodities for over 50 percent of their export earnings. Beverages (coffee, cocoa, and tea), sugar, cotton, and tobacco accounted for more than 80 percent of agricultural export earnings of those countries in the late 1990s. Stimulating development and achieving a broad-based export gain will depend on agriculture.

Challenges of Competing in U.S. & Global Markets

The U.S. food market is a mature market with daily per capita calorie availability at roughly 3,800. The U.S. produces tobacco and cotton, which are important export crops for SSA countries. While U.S. imports of agricultural products grew in the last decade, the growth rate was slower than for nonagricultural products.

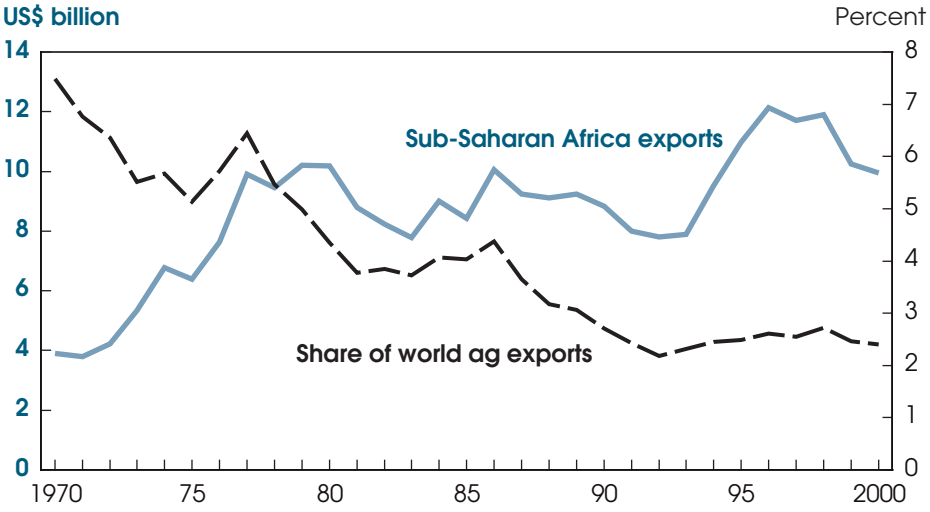
The highest value imported food commodity group is processed foods, followed by fruits, vegetables, nuts, and tropical products—including coffee and cocoa. Per capita consumption of coffee and cocoa has been flat during the last decade, as it was displaced by soda in the late 1980s and early 1990s. More recently, competition has come from bottled water.

Despite these trends, the U.S. remains a major market for coffee and cocoa. The U.S. accounts for more than 25 percent of the world's raw coffee imports, and close to 20 percent of cocoa beans. However, most U.S. coffee imports are being supplied by Latin American, not African, countries. Colombia, Guatemala, Brazil, Mexico, and Costa Rica account for about two-thirds of U.S. coffee imports. Cote d'Ivoire dominates the cocoa market, however, supplying almost half of U.S. imports.

Bananas and pineapples are also important export crops for SSA countries, but Latin American countries dominate the U.S. market for these commodities as well. Latin America has had an advantage stemming from proximity to the U.S. market, from trade agreements (such as the Caribbean Basin Initiative), and in some cases, because of a higher quality product.

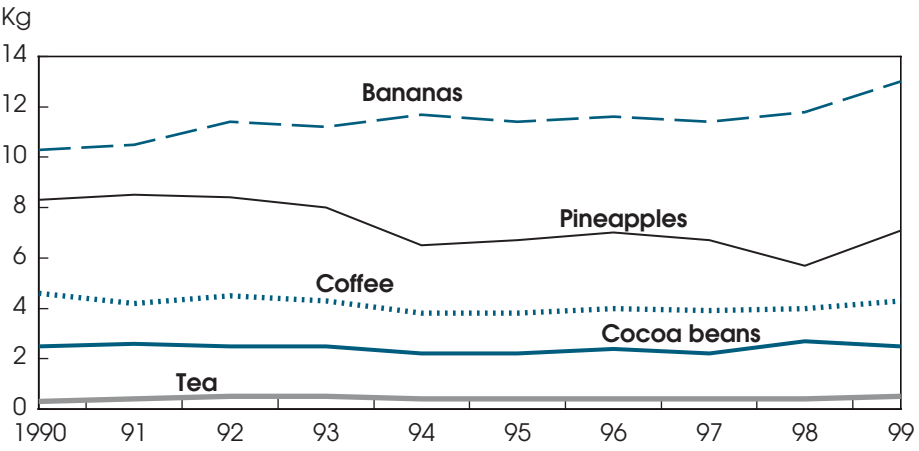
Market competition for traditional African export commodities has risen. Regional transportation policies favoring domestic carriers have raised shipping costs. As a result, the region has lost market share at the global level and in the U.S. market. SSA's share of global agricultural exports declined steadily between 1970 and the early 1990s (at an annual rate of roughly 7.5 percent), and has held fairly stable at the current rate of about 2.5 percent.

Sub-Saharan Africa's Market Share of Global Ag Exports Has Shrunk in Recent Years



Economic Research Service, USDA

U.S. Per Capita Consumption of Coffee and Cocoa Remains Flat



Key export crops for Sub-Saharan African countries. Consumption measured as annual per capita supply in kilograms.

Economic Research Service, USDA

Another constraint facing SSA is lack of established sanitary and phytosanitary (SPS) requirements—measures adopted by governments to protect animal, plant, or human health. Establishing SPS measures can take many years, particularly with limitations in:

- certification process,
- trained inspectors,
- testing facilities, and
- enforcement of standards.

Declining market share has translated into a serious financial loss. SSA's share of global agricultural exports was 4.35 percent in 1980. Had this share remained constant through 2000, SSA's agricultural exports could have reached $18 billion in 2000 as opposed to the actual value of $10 billion. The estimated loss in export revenue resulting from declining market share during the last two decades totaled more than $95 billion.

World Agriculture & Trade

SSA's share of the U.S. agricultural import market continues to fall—from 2.5 percent in 1996 to 1.9 percent in 2001—as total U.S. agricultural imports rise. Additionally, prices for a majority of Sub-Saharan agricultural export commodities have declined. In 2000, for example, prices for coffee and cocoa had fallen to about 25 percent of their peak level of the late 1970s.

Value-Added Commodities Present Opportunity

What potential export opportunities exist for this region? Value-added commodities are a possibility as demand for processed agricultural products rises—and prices for processed goods are obviously much higher than for raw agricultural products.

Currently, SSA exports mostly unprocessed agricultural products—processed products account for less than 10 percent of the region's agricultural exports. Developed countries (e.g., Canada, Germany, and Sweden) dominate exports of processed coffee and cocoa to the U.S. market. The U.S. import value of processed coffee is about 3 times as high as the raw product, and the import value for processed cocoa is more than twice that for unprocessed cocoa. Under AGOA, African countries have the potential to increase their share of these exports because they produce the raw materials and will be exempt from any tariffs that other producers have to pay.

But investment is needed before this region can enter into the processed market. In 1998, 85 percent of global foreign direct investment (FDI) went to high- and middle-income countries. Most of the FDI directed at developing countries goes to China. SSA countries received less than 1 percent of global FDI in 1999. Although FDI to the region grew threefold between 1994 and 1999, most of the benefits went to South Africa and to oil exporters like Nigeria and Angola.

Reasons for low inflow of FDI include:

- political instability;
- low GDP growth rate of SSA;
- trade restrictions in many SSA countries;
- highly variable real effective exchange rates;
- corruption; and
- poor market infrastructure.

Global trade liberalization will reduce trade barriers and increase trade competition, but it also means that the competitive edge SSA currently enjoys under the AGOA will be reduced in the future. In the meantime, however, AGOA will provide an edge for African countries. The U.S. market share of the region's agricultural exports is low relative to other regions of the world, leaving significant potential for growth. The mature U.S. consumption market is diversifying, which can create opportunities for African exporters.

Improvement in market information should allow SSA countries to make choices. Niche markets for commodities such as organic fruits and vegetable exports represent opportunity for growth. The AGOA initiative—and similar pursuits by other high-income countries—should expand market opportunities. Further integration into global markets should lead to increased foreign investment and assistance to link the region to the global economy. AO

Stacey Rosen (202) 694-5164
slrosen@ers.usda.gov

Shahla Shapouri (202) 694-5166
shapouri@ers.usda.gov

Upcoming Reports—USDA's Economic Research Service

The following reports are issued electronically at 4 p.m. (ET) unless otherwise indicated.
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August

12 *World Agricultural Supply and Demand Estimates (8:30 a.m.)*
13 *Oil Crops Outlook***
*Cotton and Wool Outlook***
*Rice Outlook***
14 *Feed Outlook (9 a.m.)***
*Wheat Outlook (9 a.m.)***
17 *Livestock, Dairy, and Poultry Situation and Outlook***
21 *U.S. Agricultural Trade Update***
*Agricultural Outlook (3 p.m.)**
22 *Vegetables and Melons Outlook***
28 *Floriculture and Environmental Horticulture Outlook***
29 *Outlook for U.S. Agricultural Trade***

**Release of summary.*
***Electronic newsletter.*

Upcoming topics in *Agricultural Outlook*

- Renegotiating EU trade arrangements with developing countries
- China—a market or a competitor for U.S. fruits and vegetables?
- Free Trade Area of the Americas—Potential Impacts on U.S. Ag Trade

The Services Sector: Its Role in World Food Production & Trade

The U.S. and other developed economies are now dominated by the services sector, accounting for more than two-thirds of their gross domestic product (GDP). Individual sectors such as the food system are also increasingly affected by the growing dominance of the service sector.

Consumers, for example, are paying more for services than for the raw materials in the foods they buy at the grocery store. They are also spending more of their disposable income at restaurants and at other eating establishments, where the service component is very large. On the supply side, purchased inputs and off-farm services are making up a growing share of farmers' total production costs. While most attention in trade policy is focused on farm-level and commodity policies, it is clear that growth in the relative importance of services in the food system merits closer examination.

Trade in services has grown faster than merchandise trade in the past two decades. As estimated from balance-of-payments statistics, total transactions of commercial service trade accounted for over 20 percent of cross-border world trade in 2000, at more than $1.44 trillion. Trade in services became a major issue in the Uruguay Round negotiations, and is a continuing source of trade friction. It is also a major focus of the new World Trade Organization (WTO) Doha Development Agenda, launched in November 2001.

Services cover a variety of sectors, each with distinct characteristics. Large sectors such as banking, insurance, and financial services have become increasingly necessary as world trade has expanded. Opening overseas markets to these sectors has become a growing issue for developed countries, the main producers of these services. Services in wholesale and retail trade and transportation industries are also very large sectors in many countries and are closely linked to trade in commodities. Reducing the costs of services (e.g., marketing, communications, and transportation costs) is now a key driver in the expansion of world trade.

Service sectors such as finance, telecommunications, and transportation are the backbone of any modern economy, and these sectors are similarly vital to the world food system. Well-functioning service industries contribute to the efficiency of the world food system in a variety of ways.

An efficient financial sector helps deploy resources where they bring the highest return within the food production sector and along the distribution chain. Shippers need access to short-term credit to facilitate the flow of food products from one market to another. Farmers need credit to modernize their equipment and to apply new technologies. Farmers and ranchers need access to insurance to minimize the risk of loss from natural disasters and economic misfortune.

Improved telecommunication efficiency generates economywide benefits; it is a vital intermediate input and contributes to the diffusion of knowledge, including new agricultural technology. The growing trade in perishable products makes rapid dissemination of information about market conditions and shipping options crucial for timely delivery and freshness.

Transportation systems and wholesale and retail services contribute to the efficient distribution of food and agricultural products within a country and in overseas markets. Business services such as legal advice and market analysis can reduce costs of penetrating new food markets. Improvement in education and health services can contribute to the accumulation of human capital in rural areas, making them more attractive for investment.

Service Trade in the World Food System

Service sector growth not only dominates the economic landscape of developed economies, but is also an integral component of economic development. Most of the value-added production activities in the U.S., the European Union (EU), and Japan are concentrated in trade, public services, financial, and other business services, while primary agricultural production constitutes less than 3 percent of GDP. Primary agriculture in low-income developing countries, like the Association of Southeast Nations (ASEAN) members, China, and especially many nations in South Asia, contributes a much larger share of GDP

World Agriculture & Trade

Services & Services Trade

A critical distinction between goods and services is that services are consumed as they are produced, involving a direct interaction between consumer and producer. Services can be differentiated by those requiring close physical proximity between consumer and producer, and those that do not. The General Agreement of Trade in Service (GATS) defines four modes of service trade, making a distinction between cross-border and local supply of services:

One involves no direct proximity:

- **Cross-border supply**—services supplied from one country to another (e.g., international telephone calls);

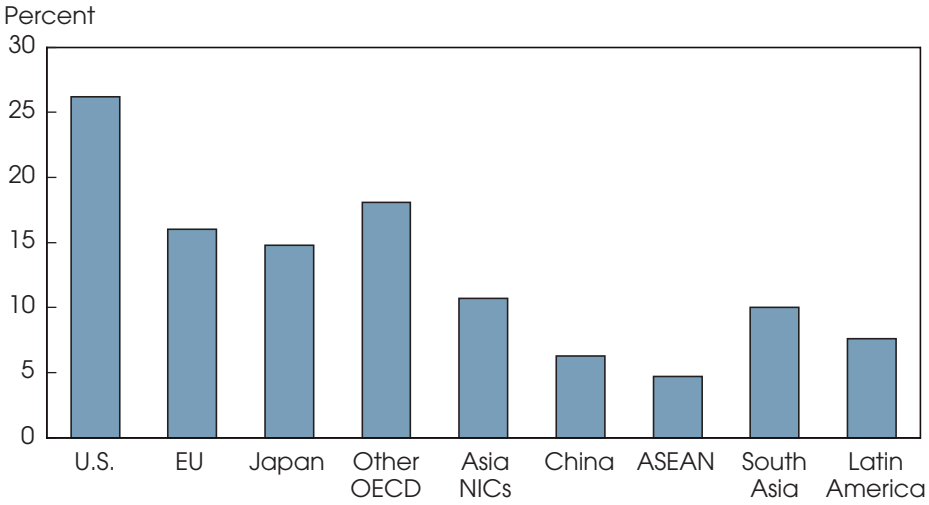
The other types involve close proximity:

- **Consumption abroad**—consumers or firms use a service in another country (e.g., tourism);
- **Commercial presence**—a foreign company sets up subsidiaries or branches to provide services in another country (e.g., an agricultural consulting firm);
- **Individual presence**—individuals travel from their own country to supply services in another country (e.g., agricultural machinery consultant).

Trade in services performs a dual function in an economy. First, it contributes directly to trade, as when a seed company undertakes field trials in another country. Second, services are linked closely to merchandise trade, wholesaling, retailing, and transport services are obvious examples.

Source: WTO Website (http://www.wto.org); Joseph Francois and Ian Wooton "Market Structure, Trade Liberalization and the GATS," *European Journal of Political Economics*, Vol. 595(2001).

Services Make Up a Larger Share of Ag Production Costs in Developed Countries



Primary ag production costs only. Excludes processing costs.
Source: Global Trade Analysis Project, Purdue University. 1997 data.

Economic Research Service, USDA

(12, 18, and 26 percent in 1997, respectively) but is trending downward.

The following patterns have emerged in the composition of value-added production:

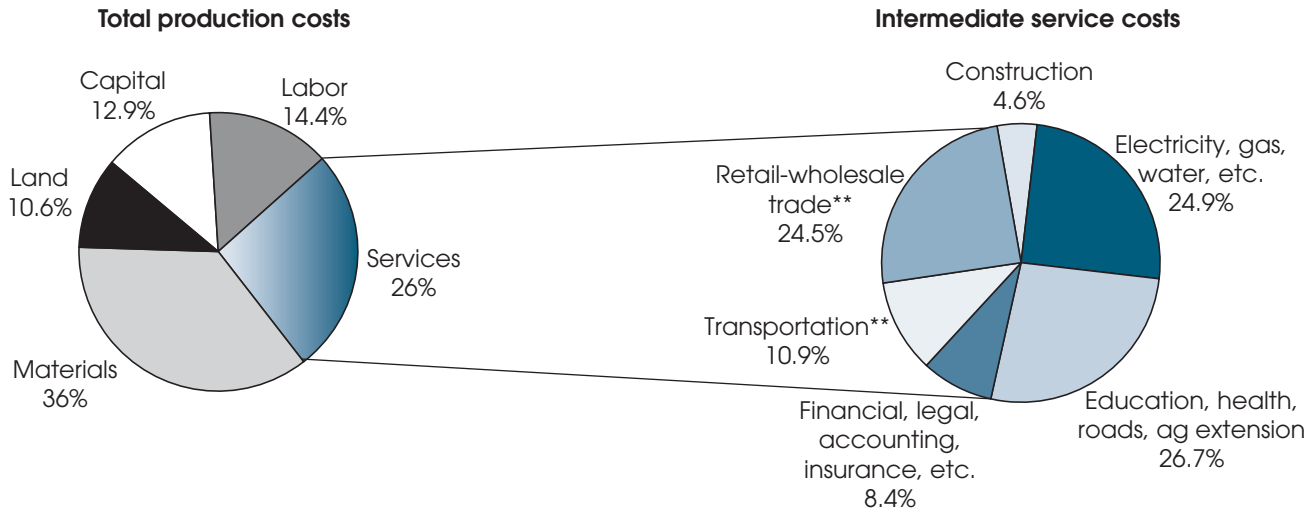
- All economies have relatively large intermediate and durable goods manufacturing sectors, with the exception of South Asia. Asia's Newly Industrialized Countries, or NICs, China, and ASEAN members have the highest share, indicating that Asia is a major manufacturing center in today's world.
- Public service, wholesale and retail trade, and transportation are large value-added sectors in almost all economies, reflecting their crucial role.
- Financial and other business services are significant value-added sectors for developed countries and the Asian NICs, but are relatively smaller in developing economies.

The fall of agriculture's share and the rise of the service sector's share of GDP during economic development are usually attributed to the relatively low price and income elasticities of food demand, as well as the rapid diffusion and application of new technologies. These lead to relatively faster productivity growth in agriculture.

The changing role of primary agriculture and services also results from the increasing importance of post-farmgate value-adding activities along the food marketing chain, such as assembling, processing, transporting, warehousing, and retailing. Farmers are receiving a declining share of the retail value of food products while consumers are paying more for services. In the U.S., the farm value of consumer food expenditures has declined from more than 30 percent to less than 20 percent in the past three decades.

Another contributing factor in the declining share of agriculture and rising share of services is farmers' increasing use of purchased intermediate inputs and off-farm services. Manual farm jobs associated with spreading manure and weeding crops, for example, have disappeared as the use of

Services Play a Prominent Role in U.S. Agricultural Production Costs



**A large share of retail/wholesale trade and transportation services is represented by the difference beween the factory price of farm inputs and the price farmers pay at retail/wholesale outlets.

Source: Global Trade Analysis Project, Purdue University, 1997 data.

Economic Research Service, USDA

farm chemicals has increased. As a result, the value added by farm households' own labor, land, and capital is declining as a share of the gross value of agricultural output. Farm use of intermediate inputs has also changed. According to time-series input-output data for the U.S., there has been a 30-year shift in the cost structure of U.S. food and agricultural production, with a declining share of material intermediates, especially primary agricultural intermediates (seed, feeder stock, etc.), and a rising share of service intermediates (financial services, insurance, etc.). Such a shift in the input structure of U.S. agricultural and food production reflects the increasing degree of specialization in the U.S. food sector and its rising dependence on the rest of the economy.

The increased role of various services as intermediate inputs in food and agricultural production is a trend observed around the world. As a growing component of total intermediate inputs in farm and food production, services account for more than 26 percent of primary agricultural production costs in the U.S., about 20 percent of processed agricultural production costs in the EU and Japan, and more than 11 percent of dairy and meat production costs in all major world economies.

The cost share of service inputs in the food and agricultural sectors of advanced economies, especially the U.S., are much higher than in developing countries because of a deeper division of labor and a greater degree of economic specialization. However, services also constitute a significant proportion (15-30 percent) of total intermediate inputs for almost all food and agricultural production, even in developing countries such as China and many South Asian nations.

Among various intermediate service inputs, financial, other business services, trade and transportation, and public services are the leading sectors. These sectors constitute more than three-fourths of total service costs in U.S. agricultural production.

The prominent role of purchased services in food and agricultural production provides a channel for transmitting gains from trade liberalization in the services sector to the world food system. When services trade is liberalized, services as intermediate inputs become cheaper, thus

Calculating the Cost of Services in Agricultural Production

The growing importance of services has not made the calculation of their cost any easier. There is a great deal of ambiguity in defining, not to mention in measuring, service costs in the economy in general and the food system in particular. For example, the inputs used in U.S. farm production as reported in the U.S. national input-output (IO) table (BEA, Dept. of Commerce) are valued at the factory level while in ERS' farm cost estimates, they are valued at the farm level. This in part explains the difference between the 1997 ERS farm cost estimates attributed to services (14 percent) and the IO calculation of 26.2 percent. Similarly, it is difficult to allocate service costs that are strictly attributable to the farm operation. Many farm households depend to a growing extent on off-farm employment, so only a portion of a service like fire insurance for the operator's dwelling can be attributed to the cost of the farm operation.

lowering the cost of world food and agricultural production. At the same time, more employment in the services sector, particularly in developing economies, will increase final demand for food and agricultural products, leading to increased world food production and trade.

Many Countries Erect High Barriers to Services Trade

The Uruguay Round established general rules for services trade and a framework for services trade negotiations, but was not greatly successful in reducing barriers. Since restrictions on trade in services are more complex than barriers to trade in goods, protection levels for services are difficult to quantify. Barriers in goods trade usually take the form of tariffs, which directly affect the price of foreign goods and can be measured relatively easily by the size of the tariff. In contrast, restrictions on services trade usually take the form of prohibitions, quantitative restrictions, and government regulations, which may affect entry and operations not only of foreign services suppliers, but also of domestic suppliers.

The World Bank made an early attempt to quantify barriers to services trade by using the presence or absence of offers made to liberalize policies during the General Agreement of Trade in Services (GATS) negotiations as an indicator of the protection level for different types of barriers to services trade. These protection rates, which ranged from zero being the most open, to 200 being the most protected, were essentially "guesstimates." They do, however, provide a crude initial estimate of the relative magnitude of protection levels for various service sectors. The estimates show that barriers to service trade are relatively higher in the retail-wholesale trade, transport services, and private business services, which are vital inputs in the global food system.

More recently, the Center for Global Trade Analysis at Purdue University estimated two gravity models of trade—for business services and for construction services—using bilateral services export data from the U.S. These gravity models predict levels of service trade that would occur in the absence of barriers, using Hong Kong and Singapore as "free trade" benchmarks. The models allow tariff equivalents for the unobserved trade barriers to be estimated for services trade in business and construction in other markets.

According to their analysis, barriers to trade in services can be quite high in some countries, at least as large as the tariffs on many agricultural and manufactured products. The average agricultural tariff rate is about 62 percent for all WTO members, which includes over-quota tariffs for tariff-rate quota (TRQ) regimes, while the post-Uruguay Round world average tariff for manufactured products is under 10 percent. Generally, estimates for the business and construction sectors show that Asian and South American economies have medium to high barriers to services trade, while European and North American economies tend to have lower protection levels.

Probable Impacts of Trade Liberalization

Services have become increasingly significant as intermediate inputs and cost components in the world food system. Trade liberalization would not only directly affect world services production and trade, but would also have significant implications for the global food system. The major channels for such impacts are through trade relationships among industries and regions. While trade represents a relatively small share of output in the services sector in most regions, the services sector in many countries is large and protection levels may be relatively high. There could be significant improvements in welfare from services trade liberalization.

Based on a recent study conducted by the Australian Productivity Commission, the world as a whole is projected to be better off by more than US$260 billion annually in terms of real purchasing power as a result of eliminating all post-Uruguay Round trade barriers. About half of the gains would come from liberalizing services trade. These are the projected gains for 10 years after liberalization, when resources have fully adjusted.

One study estimated the probable impacts of service sector trade liberalization on agricultural and food production, consumption, and trade in major economies.

Public Policies & Investment Priorities Can Distort Food Transport Services

Cabotage laws, found in more than 40 major maritime nations, raise transportation costs by restricting shipments within a country to domestic, often more expensive, carriers. Examples of the results of cabotage laws follow.

- It can be cheaper for a Hawaiian feed mill to purchase grain from Canadian or Australian sellers than from U.S. grain suppliers.
- It may be cheaper in some instances to deliver Midwest corn to distant markets like Japan than to locations within the U.S. like California's Imperial Valley.

Despite plentiful high-quality grapes produced in northwest China, inadequate infrastructure and high tolls can make it more expensive and time-consuming to get them to Guangzhou, China's biggest fruit market, than for Guangzhou to import grapes from California, which is 3 times farther away.

China's corn production is concentrated in the north and northeast and its livestock production in the southeast. But lack of adequate rail service and other infrastructure have made it cheaper for livestock producers in southern China to import corn from the U.S. or other foreign sources rather than from domestic growers. China's massive public investments in upgrading its rail system will reduce transaction costs and boost north-south agricultural trade.

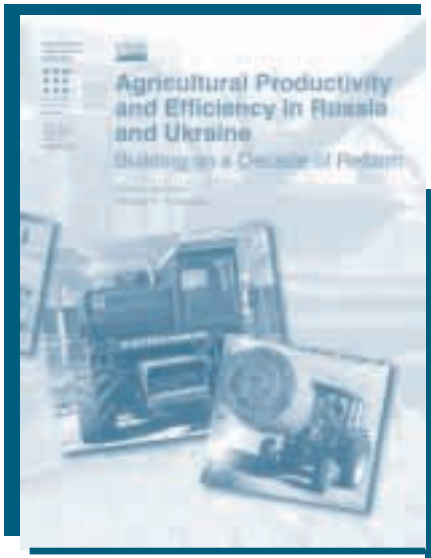
In the Philippines, transporting agricultural products from remote producing areas to processing and consuming areas in and around metropolitan centers is costly due to inadequate infrastructure. The cost of moving corn from the growing areas of Mindanao to the poultry growers located near metropolitan Manila is estimated to be higher than importing corn from Bangkok, Thailand.

Despite the use of "guesstimates" from the World Bank for services sector protection, their results reveal potential impacts of services trade liberalization on the world food system. As expected, when trade barriers in the services sector are reduced, services production and exports expand, thus increasing the demand for other intermediate inputs, including food and agricultural products. At the same time, the fall in service prices reduces production costs in sectors that use services as intermediate inputs, including the food system. Production and consumption of food and agricultural products increase in almost all regions, especially in developing economies. The only exception is a slight decline in processed food production in ASEAN countries and the U.S. Since the U.S. has a comparative advantage in producing most services, the dramatic expansion of services production and increased profitability relative to other economic activities after deregulation draws resources into services from other U.S. industries, including the processed food sector. However, world prices in all industries decline, indicating the crucial role of services as inputs in most economic activities.

Much of today's agricultural focus in the WTO is on reducing distortions in commodity markets, including import barriers, export subsidies, and government support to producers. As the contribution of primary agriculture to GDP has shrunk to less than 3 percent in developed economies, it may be time to shift the policy reform focus from production agriculture to the broader food system, where the services sector plays an increasingly significant role and may have a larger distortionary impact on the food system than commodity and farm-level policies. AO

William T. Coyle (202) 694-5216
wcoyle@ers.usda.gov

Zhi Wang (202) 694-5242
zwang@ers.usda.gov



Tracking the progress of transition economies

Despite 10 years of economic reform in Russia and Ukraine, agricultural productivity continues to lag on many of their farms. The situation might be different if these countries succeeded in completing institutional reforms in the agricultural sector and economywide. How would full implementation of reforms affect ag-sector efficiency in Russia and Ukraine? How would it affect their potential to become significant grain exporters?

Agricultural Productivity and Efficiency in Russia and Ukraine: Building on a Decade of Reform

A new report featured on the Economic Research Service website
www.ers.usda.gov/Features/TransitionEconomies/

Trade Remedy Laws & Agriculture

During the past century, governments of industrialized nations have devised three basic trade remedies—countervailing duties, antidumping provisions, and safeguards—as defense measures against imports causing injury to domestic industry. The Uruguay Round of international trade negotiations, which established the World Trade Organization (WTO) in 1994, attempted to discipline inappropriate use of these trade remedies by establishing criteria or standards for their application.

Building on existing standards in some developed countries, the Uruguay Round established procedural and evidentiary requirements that all WTO members must meet before invoking trade remedies. While used mainly by developed countries, trade remedy use since the Uruguay Round Agreement (URA) of 1994 has expanded rapidly among developing countries. This may indicate a more transparent system, with WTO members adhering to trade regulations and notifying the WTO of any regulatory changes. On the other hand, it may indicate that some members are resorting to trade remedy measures to block imports in place of other trade barriers removed through trade liberalization.

Trade remedies are being increasingly employed by developing countries against agricultural products, particularly value-added agricultural products. As a major exporter of high-value products, U.S. agriculture faces mounting use of trade remedies by importing countries and has a substantial interest in the outcome of WTO negotiations on these measures.

The Emergence of Trade Remedies

Countervailing duties (CVDs) and antidumping remedies originated in the late 19th and early 20th centuries, about the same time as antitrust laws and for similar reasons. High tariffs on imports supported domestic cartels and aggressive export policies. Several European governments, for example, supported their sugar-beet producers and refiners through subsidies or bounties on refined sugar exports. To combat this practice, the U.S., in the McKinley Tariff of 1890, created the first formal CVD measure as "a duty on bounties, not on sugar." CVDs are aimed at neutralizing the export subsidies of foreign governments, rather than becoming new trade restrictions.

While CVDs are aimed at offsetting foreign government subsidies on exports, antidumping measures are directed at offsetting "unfair" actions of foreign (private) firms. Dumping refers to all export sales below "normal value," defined as the comparable domestic price (in the exporting country) of the product. Antidumping laws, therefore, discipline export price discrimination by foreign firms, even though domestic firms engaging in identical conduct in the home market would not be similarly disciplined.

In 1904, Canada created the first formal antidumping measure in response to steel exports from the U.S., which Canada claimed were priced below the domestic U.S. price. Canada imposed a duty to offset the difference between the U.S. export price and normal value. The U.S. adopted an antidumping law in 1916, followed in the 1920s by most English-speaking countries, and in the Depression years of the 1930s by other industrialized countries.

International Discipline Of Trade Remedies

The 1947 General Agreement on Tariffs and Trade (GATT) attempted to reverse the economic nationalism and protectionism of the interwar years. Article VI of the GATT addressed antidumping and CVDs, but the text was so general that it provided no effective discipline. The 1979 Tokyo Round of trade negotiations produced "codes" on antidumping and subsidies. While more specific than earlier agreements, these codes still left considerable discretion to the few GATT members that agreed to abide by them.

The 1994 URA marked a major change, resolving many of the ambiguities in earlier agreements with more specific agreements on subsidies, CVDs, safeguards, and antidumping. The terms of these agreements are binding on all WTO members, not just those that chose to abide by the 1979 codes. The URA also improved on the existing dispute resolution process. A binding timeline prevents disputes from continuing indefinitely, and several antidumping complaints already have been resolved.

Trade Remedies Available Under the Uruguay Round Agreement

Remedy	Target of remedy	Criteria for remedy implementation	Use by WTO members	Duration
Countervailing duties (CVDs)	Foreign government subsidies for manufacture, production, or export	Evidence of foreign government subsidy on exported products Proof that subsidized exports cause or threaten to cause injury to importing country's domestic industry	Initially used mainly by developed countries, but developing country use is growing and accounts for over one-third of all CVD actions. Member actions on agriculture account for about a third of CVD actions, all on high-value and processed food products.	5 years, extended upon review
Antidumping duties	Exports below "normal value"	Evidence of imports being sold below "normal value" Proof that "dumped" imports cause or threaten to cause injury to importing country's domestic industry	Initially used mainly by developed countries, but developing country use is growing and accounts for about half of all antidumping actions. Agriculture accounts for about 5 percent of antidumping actions, all on high-value and processed food products.	5 years, extended upon review
Safeguards	Surge of imports	Proof that surge of imports causes or threatens to cause "serious" injury to domestic industry	Due to lack of domestic legislation, safeguard action has been limited to 17 countries. Agriculture has accounted for about half of total safeguard actions, all on high-value and processed products.	4 years, extended upon review
Special safeguards (SSGs)	Agricultural imports exceeding set volume and value trigger levels	No criteria required beyond breaching set trigger levels Only commodities notified with an SSG in WTO Country Schedules are eligible	Of 38 countries that reserved the right to use SSGs, to date only 8 have employed this right. Of 333 SSGs used to date, over half are on meat products, 15 percent are on fresh produce, and 14 percent are on dairy products.	1 year, extended if trigger is exceeded

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WTO membership obliges member countries to play by WTO rules. Member governments voluntarily surrender some discretion over actions that can adversely affect other members, and in return gain the benefit that other members must also refrain from such actions. The U.S. is the world's leading importer, and its trade remedies are often challenged. But as the world's leading exporter, the U.S. also stands to benefit if its trading partners abide by trade remedy disciplines.

Countervailing duties (CVDs). Article VI of GATT allows the use of CVDs to offset public subsidies for the manufacture, production, or export of any merchandise. When a WTO member suspects that subsidized imports are causing or threatening to cause material injury to a domestic industry, it initiates an investigation to gather evidence. Although CVDs can be levied only after proving the injury or threat of injury, the trade impacts may be immediate upon initiation of the investigation. The URA establishes disciplines for calculating subsidies, and requires that CVDs terminate after 5 years—the sunset provision. Article VI allows the duty to be extended beyond the 5-year sunset if a public review determines that the foreign subsidy still exists and that injury to a domestic industry is still likely.

The URA also defines what constitutes a subsidy, whether the subsidy is general or specific to a commodity, and whether it is prohibited, actionable, or non-actionable. A ***subsidy*** is defined as a financial contribution to a private firm by a government or any public body within the territory of

the member country. It can involve direct transfer of funds, government revenues forgone or uncollected, goods or services provided other than general infrastructure, payments made to a funding mechanism, or any form of income or price support.

Prohibited subsidies include all export subsidies and other subsidies contingent on the use of domestic products over imported products, with the exception of agricultural commodities as specified by Article 13 of the Uruguay Round Agreement on Agriculture (which is part of the URA). ***Actionable subsidies*** are those against which trading partners can initiate investigations to implement trade remedy measures, and include any non-prohibited subsidies adversely affecting the interests of other WTO members. ***Non-actionable subsidies*** are general subsidies allocated for research, assistance to disadvantaged regions, assistance to promote adaptation to new environmental regulations, and other non-specific payments.

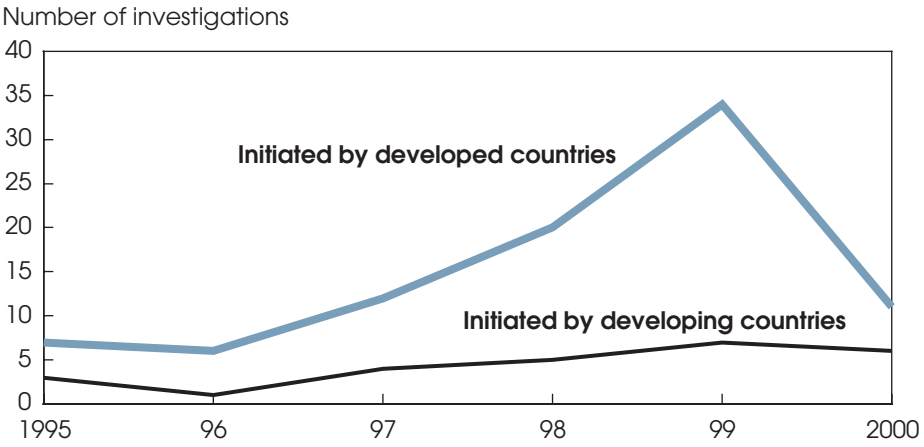
Although previously used mainly by developed countries, CVDs are increasingly used by developing countries, accounting for over one-third of all investigations initiated by WTO members in 2000. While CVDs were mainly used in nonagricultural sectors by the U.S. and the European Union (EU), CVD use by developing countries is primarily for agricultural products. For example, during the first 6 months of 1999, less than 1 percent of CVDs initiated and enforced by the EU and the U.S. were on agricultural products, but all CVDs initiated and about 75 percent of CVDs enforced by developing countries were on agricultural products.

High-value food products appear to be the most vulnerable. All 34 CVD investigations carried out on agricultural products by WTO members between 1995 and 2000 were directed at high-value products such as meat and other animal products, vegetables, fats and oils, and processed food products.

Antidumping provisions. Article VI of GATT defines *dumping* as the introduction of a product from one country into the commerce of another at less than its "*normal value*." The URA defines normal value as the comparable price for the product, in the ordinary course of trade, when destined for domestic consumption in the exporting country. If such a price is not available, normal value may be computed using a comparable price for the product exported to a third country. If this information is not available, the normal value for the product is "constructed" by taking into account production costs, selling expenses, and profit.

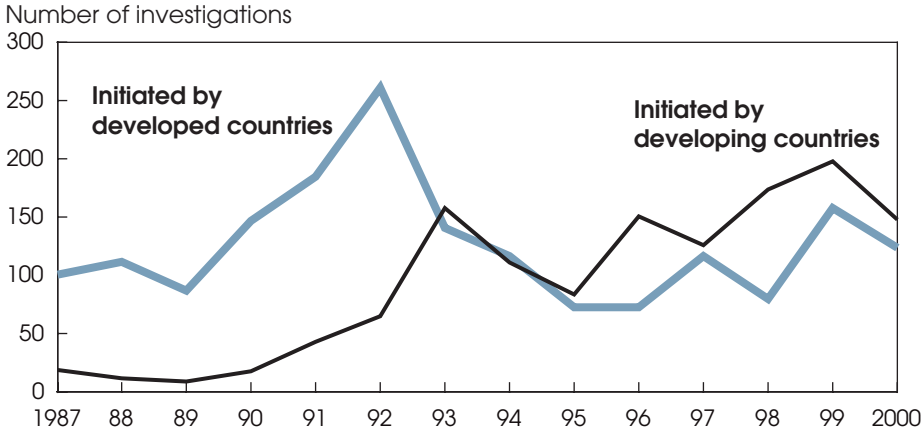
An antidumping investigation also involves a two-part test. A WTO member must first find evidence that dumping exists. Second, a member must find that dumping causes or threatens to cause

In Recent Years, Developing Countries Have Increasingly Sought to Impose Countervailing Duties. . .



Developing countries include transition economies, such as countries of the former Soviet Union and Eastern Europe. Countervailing duties offset public subsidies of exports. Investigations determine whether the duties are warranted.
Includes all products, not just agricultural.
Source: World Trade Organization Secretariat, January 2002.
www.wto.org/english/tratop_e/scm_e/scm_e.htm#annualreports

. . .and Have Surpassed Developed Countries in Initiating Antidumping Measures



Developing countries include transition economies, such as countries of the former Soviet Union and Eastern Europe. The GATT defines dumping as the introduction of a product from one country into the commerce of another country at less than "normal value." Investigations determine whether antidumping duties or other restrictions are warranted.
Includes all products, not just agricultural.
Source: WTO Secretariat, Rules Division, Antidumping Measures Database.
www.wto.org/english/tratop_e/adp_e/adp_e.htm#annualreports.

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material injury to an established domestic industry or retards establishment of a domestic industry. If both requirements are satisfied, the injured country can impose an antidumping duty that cannot exceed the *margin of dumping*—the difference between export price and normal value.

The antidumping agreement established a *de minimis* threshold. Duties can be imposed only if the dumping margin exceeds 2 percent of the export price or if the import market share from the dumping supplier exceeds 3 percent (by volume). When several countries are simultaneously subjected to an antidumping investigation, their imports can be aggregated or "cumulated." The cumulated *de minimis* volume share is 7 percent. Finally, antidumping actions are subject to a 5-year sunset provision similar to that for the CVD which requires that reviews be conducted to ascertain whether dumped imports still cause or threaten to cause injury to domestic industry.

Once imposed only by a few industrialized countries, antidumping measures have been increasingly adopted by developing countries. Between 1995 and 2000, developing countries accounted for over half of all antidumping investigations. The number of countries using antidumping measures increased more than five-fold between 1987 and 2000, from 7 to 37, with nontraditional users such as Argentina, India, and South Africa increasing their use significantly. Antidumping use by traditional (industrialized) users, on the other hand, has slowed in recent years compared with the early 1990s.

Antidumping investigations for agricultural products often find dumping and injury due to frequent price variations, especially among perishable products. Agriculture also remains very vulnerable to antidumping investigations given the current rule that bases the normal value of a product on estimates of total production costs, both fixed and variable, adjusted for marketing, handling, and imputed profit. In contrast, agricultural firms with perishable products make short-term business decisions based on meeting seasonal (variable) expenses. Given the length of time required to produce agricultural products, supply cannot be adjusted to price variations in the short run. Selling below the already-incurred cost of production, especially for perishable products, is the rational loss-minimizing option for producers.

Agricultural exports are increasingly vulnerable to protective actions, given the increased use of antidumping measures by developing countries. Many developing countries restrict food and agricultural imports through high tariffs, licensing requirements, and parastatal import controls. As these countries implement their WTO obligations and liberalize agricultural trade, antidumping actions become an increasingly attractive substitute for traditional means of protection. While agriculture accounted for about 6 percent of the total number of antidumping investigations launched between 1987 and 1997, it accounted for over 10 percent of total investigations among newly established developing country users such as Brazil and Colombia, and 96 percent of Poland's total. Like CVDs, the use of antidumping measures in agriculture is limited primarily to high-value products such as fresh produce, meat, and processed food products.

General safeguards. Article XIX of GATT allows members to impose "safeguards" or temporary import control measures (tariffs and quantity restrictions) if a surge of imports causes or threatens to cause serious injury to a domestic industry. The subsequent Uruguay Round Agreement on Safeguards (URAS) established several rules. A necessary condition

GATT & WTO: Distinguishing the Two

At the end of World War II, several international organizations were established to reverse the economic nationalism and protectionism of the interwar years and to enhance global security. The United Nations, the World Bank, and the International Monetary Fund were founded in 1944-45. An International Trade Organization (ITO) was also planned as part of the postwar order, but key countries objected to parts of the ITO charter and the organization was never established. Twenty-three countries, however, did agree to sign the ***General Agreement on Tariffs and Trade (GATT)*** in 1947.

Technically the GATT is an agreement and not an organization: it has signatories rather than members. The assumption was that someday an ITO would be established as a permanent organization. In the interim, GATT signatories met periodically to negotiate changes in tariffs and trade policies; these meetings were called "rounds" of negotiations. More countries became signatories, and a GATT Secretariat was established to provide administrative support.

In 1994, the Uruguay Round of the GATT (1986-94) established the ***World Trade Organization (WTO)***. The GATT Secretariat then became the WTO Secretariat, and GATT signatories became WTO members. The new organization did not supercede the GATT, which still exists.

The GATT is similar to a constitution, where the original text has been and can be amended by its signatories. In contrast, the WTO is like a government that interprets and administers the laws contained in the constitution. Most of the articles of the original 1947 GATT text remain in effect. A few articles have been changed, and some new articles have been added. For example, the Uruguay Round expanded the scope of the GATT to include formal agreements on agricultural and textile trade, and rules governing subsidies and dumping.

In addition to GATT, the WTO also administers other multilateral agreements concluded during or since the Uruguay Round. These include the General Agreement on Trade in Services—covering banking, finance, insurance, telecommunication, tourism, and transportation (see article, this issue); the Agreement on Trade-Related Aspects of Intellectual Property Rights—covering patents and trademarks; and the Dispute Settlement Understanding, which established a WTO judicial body to resolve disputes among members.

is a finding of "serious injury" (or threat thereof) which, while vague, is a higher standard than the "material injury" standard in antidumping and CVD actions.

The URAS grants a 3-year retaliation-free period to WTO members who impose a safeguard. After 3 years, adversely affected trading partners can retaliate. Whether the safeguard was correctly imposed can be challenged through the WTO's dispute settlement process. A sunset provision requires safeguards to lapse after 4 years, but if the sunset review reveals serious injury to the country imposing the safeguard, it can be reimposed for an additional 4 years. While CVD and antidumping actions apply only to particular exporters, safeguards must apply to all suppliers. The safeguard *de minimis* exempts actions against developing countries with market shares of less than 3 percent, or a group of countries with a cumulative share of less than 9 percent.

Between 1995 and October 2001, only 46 members had notified the WTO of their domestic legislation relating to safeguards. Given the lack of domestic legislation, safeguard actions have been limited to 17 countries, but as legislation develops, it is likely that the number of countries invoking safeguards will increase. This is evident by the fact that while only 50 investigations were notified to the WTO between January 1, 1995 and November 9, 2000, the WTO received 30 investigation notifications during the 11-month period between November 10, 2000 and October 29, 2001. About half of all safeguard investigations notified to the WTO since 1995 have covered agricultural products, primarily high-value products such as meat, milk powder, edible oils, peaches, and tomatoes.

Special safeguards. Besides general safeguards, the Uruguay Round Agreement on Agriculture allows members to create special safeguards (SSGs) in the form of additional duties for agricultural commodities subject to tariffication—those products subject to quotas and bans prior to the Uruguay Round. Although this provision is not labeled as a trade remedy measure, it allows WTO members to implement additional duties for products identified in member-country schedules, when trigger levels for volume and value are satisfied. For example, additional SSG duties can be levied on an imported product if the import volume exceeds a pre-set (according to WTO guidelines) volume trigger, or if the price of the imported product is below a set trigger level. The Agreement on Agriculture provides general guidelines for setting trigger levels and for calculating additional duties when an SSG action is to be taken.

As of 1999, 38 members had designated SSGs in their country schedules, and eight had actually employed them. The U.S. and the EU have accounted for most of the SSG cases—mostly for sugar, dairy, and animal and horticultural products—but there is growing use by other countries, notably Poland. Developing countries, however, have complained about the SSG provision. Many had not identified commodities eligible for SSGs by the conclusion of the Uruguay Round, preventing them from using the provision.

Unlike other remedies, SSGs are immediate; they require no quasi-judicial process to determine whether action is merited. If the import volume or value limit set by the importing country is breached, it may immediately impose an SSG; no injury determination is required. SSGs remain in effect for the remainder of the calendar year after implementation, but may be reimposed if volume or value continue to exceed trigger levels. Furthermore, SSGs are exempt from trade remedy actions by adversely affected exporters.

Similar to other trade remedy measures, SSGs are applied primarily to high-value agricultural products. Over half of all SSGs applied between 1995 and 1999 were on meat products, 15 percent were on fresh produce, and 14 percent were on dairy products.

What's Ahead for Trade Remedies?

In light of concerns that WTO members may have too much discretion in implementing trade remedy measures, the November 2001 Doha ministerial declaration states that the new round of WTO negotiations will aim at clarifying and improving GATT disciplines on subsidies and countervailing measures. In the initial phase of the negotiations, participants may indicate the provisions for which they seek clarification and improvement. Requests for attention submitted so far include the methods for calculating "normal value" and for cumulating imports in antidumping investigations. Additionally there is a need to consider better harmonization of trade remedy laws across WTO members. While implementing a measure in some countries requires approval by panels of experts, in other countries single individuals may possess the same authority.

A special concern for agricultural trade is the expiration of Article 13 of the Agreement on Agriculture at the end of 2003. Unless a new agreement makes similar provisions, all agricultural subsidies will become open to CVD challenges. AO

Anita Regmi (202) 694-5161
aregmi@ers.usda.gov

David Skully (202) 694-5236
dskully@ers.usda.gov

Assessing the Economic Well-Being of Farm Households

While commodity prices or farm income are often cited as indicators of the economic well-being of farm households, the picture they give is certainly incomplete and most likely distorted. Because half of farm operators spend the majority of their work time off the farm, their household income is driven more by the *general* economy than by the farm economy. Nor is it enough to recognize the diverse sources of income. A comprehensive assessment of well-being must move beyond income and consider other dimensions such as household consumption and wealth.

USDA's 2000 Agricultural Resource Management Survey (ARMS), in addition to collecting information on household income and consumption, queried farm operators about household farm and nonfarm assets. These data provide a unique opportunity to examine farm household well-being in the context of the entire economy.

Farm household income levels used to be below those of nonfarm households. Average farm operator household income first exceeded the average income of all U.S. households in the early 1990s and has been consistently higher since 1996. Statistics for 2000 show average farm household income at $62,019, compared with $57,045 for all U.S. households. A comparison of median incomes (which reduces the influence of extreme values) also shows earnings of farm households exceeding those of all U.S. households.

What accounts for farm household income surpassing average U.S. household income? Earnings from all off-farm sources grew from $10 billion in 1964 to $125 billion in 2000. Meanwhile, sector-wide net cash farm income has increased by only $36 billion. Thus, it is the increase in off-farm earnings of farm families that has pushed up farm household income.

Wages and salaries make up a significant proportion of off-farm earnings even though they declined from 65 percent in 1964 to below 56 percent of total off-farm earnings in 2000. Nonetheless, the absolute level of farm household wage earnings was nearly 9 times larger in 2000 than in 1964.

There are several reasons for this growth in off-farm earnings. First, off-farm labor force participation rates for rural farm residents rose from approximately 52 percent in 1960 to 65 percent in 1990. Additionally, an increasing share of farm households have at least one member working off the farm full-time (participation of rural farm females more than doubled during the same period), and more farm operators worked off the farm. The economic boom of the 1990s also helped by creating more jobs and higher wages in areas within commuting distance of farm households.

In the past, economists have characterized economic well-being in terms of income's ability to support current consumption expenditures. However, two individuals with the same income but different amounts of wealth will have different consumption potential. Wealth, defined as the sum of farm and nonfarm net worth, represents potential spending power. A majority of farm wealth (net worth) is in farm assets, especially land, although it is difficult to liquidate on short notice. Average farm household net worth has increased steadily over the years, mainly from the appreciation in farmland values.

Classifying Households By Income & Wealth

Farm household economic well-being is affected both by the level of income and wealth available to the household and by how income and wealth influence household consumption. The well-being of households has both an absolute component, which compares income and wealth to a selected standard, and a relative component, which measures the ability of households to meet consumption needs.

Movements in commodity prices, production shortfalls due to weather, and lack of off-farm jobs all affect well-being. Changes in economic conditions such as interest rates can have competing effects on farm and off-farm incomes. All of these factors contribute to income variations in a given year. Access to financial or other "liquid" assets (including savings and inventories) can help forestall a tightening in household consumption. Likewise, income that exceeds consumption can be added to savings or used to pay down debt.

Analysis of ARMS data by USDA's Economic Research Service (ERS) suggests that farm households have higher incomes, greater wealth, and lower con-

Farm & Rural Communities

Most Farm Households Have Wealth that Exceeds the U.S. Household Median

	Income/wealth relative to median U.S. household				
	Lower income, lower wealth[1]	Lower income, higher wealth[1]	Higher income, lower wealth[1]	Higher income, higher wealth[1]	All-farm total
Percent of all households*	25	25	25	25	100
Percent of farms in group	6	42.6	2.6	48.7	100
Averages:					
Farm size (operated acres)	175	435	197[2]	455	423
			Dollars		
Government payment	3,523	6,115	3,143[2]	9,014	7,294
Farm income	-5,325[2]	-10,551	1,351[3]	15,530	2,791
Off-farm income	23,321	24,800	82,269	92,493	59,228
Farm operator household income	17,995	14,249	83,619	108,023	62,019
Total household expenditures	17,118	19,994	29,018	32,073	25,948
Household net worth	39,503	449,521	21,034[2]	656,040	514,212
Household farm net worth	43,145	387,396	38,897	517,587	420,950

*For reference: by definition, 25 percent of all U.S. households would fall into each of the four categories of relationship to median U.S. household income and wealth.
1. "Lower" or "higher" income or wealth than the median U.S. household. Median income for all U.S. households in 2000 was $42,000; median wealth was $78,000. Wealth is defined as the sum of a household's farm and nonfarm net worth. 2. Standard error of the estimate is greater than 25 percent and less than or equal to 50 percent. 3. Standard error of the estimate is greater than 75 percent.
Source: 2000 USDA Agricultural Resource Management Survey.

Economic Research Service, USDA

sumption expenditures than do all U.S. households. Farm household incomes are better able to support their consumption needs. Since average comparisons can be misleading, the study divided farms into four groups using levels of income and wealth relative to all U.S. households:

- farm households with higher income and higher wealth than the median U.S. household (49 percent of farm households);
- farm households with higher income but lower wealth (less than 3 percent of farm households);
- farm households with lower income but higher wealth (about 43 percent of farm households); and
- farm households with both lower income and lower wealth (6 percent of farm households).

Higher income, higher wealth. In 2000, almost half of U.S. farm households had both higher incomes and greater wealth than all U.S. households. The vast majority of these farms (98 percent) reported household income greater than consumption expenditures in 2000—on average, an excess of $76,000 in income over consumption expenditures. This group of farms reported average net worth of $656,000, of which $138,500 was household assets not owned by the farming operation.

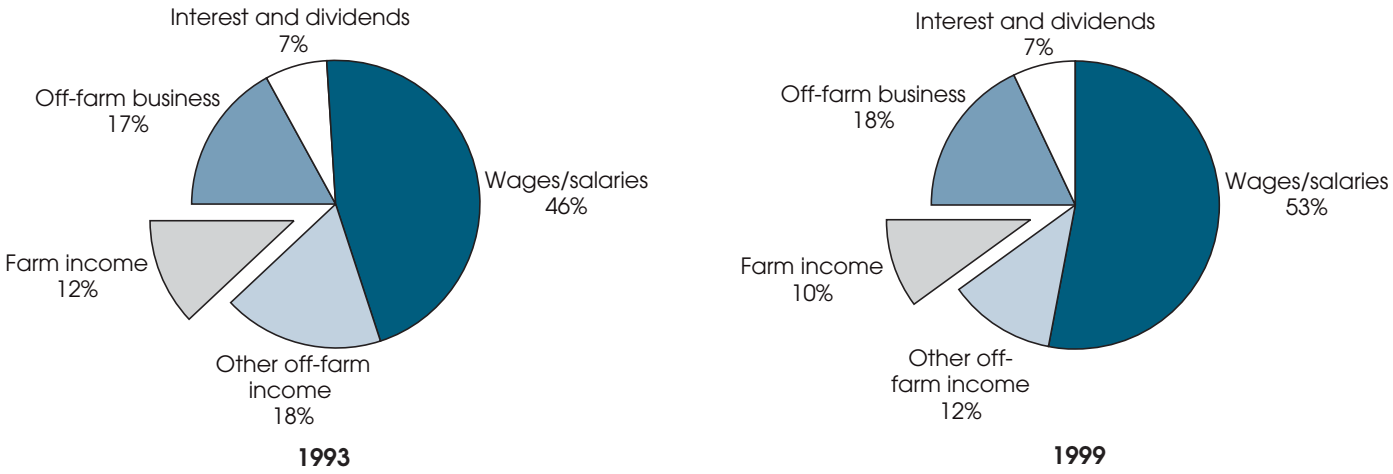
This group of higher income, higher wealth households includes a disproportionate share of larger farm operations and farm operators who reported a primary occupation other than farming. On average, this group of households operated the largest farms as measured by acreage (455 acres), accounted for 62 percent of farm output, drew 60 percent of government payments, and had, by far, the highest educational attainment.

Higher income, lower wealth. The 2.6 percent of farm households with higher incomes and lower wealth than all U.S. households are almost entirely focused on off-farm activities, with 84 percent reporting a primary occupation other than farming. Younger than average, with more having attended or completed college, their household incomes are almost entirely from off-farm sources and exceed consumption expenditures by a wide margin.

Lower income, higher wealth. Of the nearly 43 percent of farm households reporting lower income but greater wealth than all U.S. households, 42 percent reported annual household incomes below their expenditures in 2000. This group contains a disproportionate share of mid-size farms and of farmers who report that they are retired. For many of these, farm-derived income is often negative. But on average, money owed from sales and additions to inventory would have been sufficient to offset half of the group's income shortfall. Taking these assets into account, the proportion of lower income, higher wealth households with incomes less than consumption drops from 42 percent to 38 percent. Thus, stockholding within their farm businesses as well as funds owed the business from prior economic actions must be considered. Without accounting for these sources of liquid or near-liquid assets, the proportion of households considered disadvantaged could be substantially higher. This would have been particularly true for households of younger operators.

The lower income, higher wealth farms hold a vast majority of their net worth ($450,000 on average) in business assets (such as land, machinery, and crop and livestock inventories). The retired or more elderly farmers in the group who do not have sufficient current earnings from farming can access their accumulated assets or begin to consume capital assets (e.g., choose not to replace machinery or equipment as it wears out). Generating a sustained flow of income from the house-

A Majority of Farm Household Income Comes From Off-Farm Sources



Source: Agricultural Resource Management Survey (ARMS), 1993 and 1999.

Economic Research Service, USDA

hold's asset base to support household consumption requires either disposing of the farm or renting/leasing to other farmers or to the government through land retirement programs (such as conservation reserve). Many lower income, higher wealth households report receiving government payments, averaging $6,115 in 2000. This group also contains farm businesses whose income is temporarily lower because of either low commodity prices or production shortfalls. For many of these operations, adequate consumption levels can be maintained by drawing on savings or other assets.

Lower income, lower wealth. About 6 percent of farm households have both lower incomes and lower wealth than all U.S households. Principally small and limited-resource farms, this group has thin margins between household incomes and consumption expenditures. Of these households, 21 percent report farming as their primary occupation, and nearly 38 percent are limited-resource households. Moreover, their small asset base can be insufficient to meet any unexpected shortfall in household earnings. Nearly one out of three of these households reported income less than consumption expenditures in 2000. For these households, there is insufficient income to support even relatively low levels of consumption and few assets to meet or enhance consumption.

Policy Implications

Today, farm households are virtually indistinguishable from nonfarm households in their levels of income and diversity of employment. As a result, government policies that influence general economic conditions may have a much more profound impact on farm families than do farm policies.

While farm families may suffer low incomes in any given year, low incomes are not necessarily chronic or involuntary. Relatively low household income in a particular year may result from an unusual weather event. The seeming immobility of farmers may, in fact, be voluntary and may simply reflect the nonmonetary value farm households assign to farm ownership and rural living in comparison with wages and benefits from nonfarm employment.

Issues regarding Federal government support of farm income gain breadth when considered in light of farm income's role in farm household well-being. A limited number of households depend on farming for a majority of their farm household income. Since household incomes for farms that get the majority of their income from farming are generally well above the average for all households, the case for income support as a necessity for well-being is weakened.

During low-income years, many farms are able to maintain consumption by drawing on savings or by borrowing. Government policies that reduce credit constraints or increase farm household wealth may better address a farm household's yearly needs than do policies tied to farm production, farmland, or commodity production. By reducing market risk, government farm programs may create a disincentive for farmers to accumulate cash reserves for unexpected income shortfalls.

One way to minimize the adverse and unintended effect of farm payments is to pursue policies aimed at increasing off-farm job opportunities. One such policy tool provided tax incentives to attract private-sector investment in areas targeted for economic development (i.e., areas with pervasive poverty and unemployment).

The role of human capital is a related issue. Nearly one-quarter of U.S. farm operators, particularly older farmers, attained less than a high school education. Farmers with less formal education tend to miss out on higher paying off-farm jobs and job advances. This suggests a benefit

to revisiting programs that authorized USDA to administer national grants to promote public secondary education curricula and enrollments in agriculture-related studies. Such programs might instead provide training for off-farm work.

Capitalization of government payments into higher prices for farmland, production and marketing rights, production facilities, and other specialized resources has helped to create wealth (*AO* November 2001).

Estimates of the value of farmland attributable to government payments range between 8 and 25 percent. Some fear that removing the direct link between program payments and land values would cause severe adjustment problems. Yet farm families have diversified their asset holdings beyond the farm business, in effect helping to insulate them from the potential impacts of farm asset deflation.

Recognition of the importance of farm households' wealth and income diversity as it relates to off-farm sources of income should not diminish the overall benefits and opportunities that agriculture provides to local economies. A flow of farm and off-farm resources has the potential to create an environment that will attract and sustain private investment, job growth, and income generation activities in rural America. AO

Ashok Mishra (202) 694-5580
amishra@ers.usda.gov

Hisham El-Osta (202) 694-5564
helosta@ers.usda.gov

Mitchell Morehart (202) 694-5581
morehart@ers.usda.gov

Jeffrey Hopkins (202) 694-5584
jhopkins@ers.usda.gov

James Johnson (202) 694-5570
jimjohn@ers.usda.gov

Statistical Indicators

Summary Data

Table 1—Key Statistical Indicators of the Food & Fiber Sector

	Annual			2001		2002				2003
	2001	2002	2003	III	IV	I	II	III	IV	I
Prices received by farmers (1990-92=100)	102	99	--	108	94	100	--	--	--	--
Livestock & products	106	95	--	111	100	96	--	--	--	--
Crops	99	103	--	105	89	104	--	--	--	--
Prices paid by farmers (1990-92=100)										
Production items	120	118	--	120	118	121	--	--	--	--
Commodities and services, interest, taxes, and wage rates (PPITW)	123	123	--	124	123	123	--	--	--	--
Cash receipts ($ bil.)	203	194	--	52	61	47	40	48	59	--
Livestock	106	98	--	27	28	25	22	24	28	--
Crops	96	96	--	24	33	22	18	25	31	--
Market basket (1982-84=100)										
Retail cost	177	--	--	178	179	181	--	--	--	--
Farm value	106	--	--	110	108	107	--	--	--	--
Spread	215	--	--	215	217	220	--	--	--	--
Farm value/retail cost (%)	21	--	--	22	21	21	--	--	--	--
Retail prices (1982-84=100)										
All food	173	178	180	174	175	177	177	178	178	179
At home	173	178	180	174	175	177	177	178	178	179
Away from home	174	178	182	175	176	177	177	179	180	181
Agricultural exports ($ bil.)[1]	52.8	54.5	--	12.3	15.2	13.8	12.9	12.6	--	--
Agricultural imports ($ bil.)[1]	39.0	40.0	--	9.4	10.0	10.1	9.6	10.3	--	--
Commercial production										
Red meat (mil. lb.)	45,663	46,791	45,520	11,371	12,048	11,259	11,730	11,872	11,930	11,179
Poultry (mil. lb.)	37,343	38,347	39,175	9,406	9,444	9,372	9,780	9,600	9,595	9,550
Eggs (mil. doz.)	7,152	7,157	7,210	1,788	1,829	1,767	1,775	1,785	1,830	1,770
Milk (bil. lb.)	165.3	169.8	172.5	40.6	40.8	42.3	43.8	41.7	41.9	43.2
Consumption, per capita										
Red meat and poultry (lb.)	213.3	219.5	215.0	53.7	54.9	52.2	56.0	55.5	55.9	52.5
Corn beginning stocks (mil. bu.)[2]	1,899.1	--	--	3,924.0	1,899.1	8,264.7	--	--	--	--
Corn use (mil. bu.) [2]	9,795.0	--	--	2,026.3	3,143.7	2,471.1	--	--	--	--
Prices[3]										
Choice steers--Neb. Direct ($/cwt)	72.71	67-69	72-79	70.19	65.13	70.19	65.58	62-64	70-76	71-77
Barrows and gilts--IA, So. MN ($/cwt)	45.81	34-35	33-36	51.05	37.30	39.43	35.03	35-37	28-30	33-35
Broilers--12-city (cents/lb)	59.10	56-58	57-61	61.10	58.50	56.00	56.10	57-59	55-59	55-59
Eggs--NY gr. A large (cents/doz.)	67.20	64-66	64-69	61.40	68.20	69.10	58.40	59-61	70-76	67-73
Milk--all at plant ($/cwt)	14.97	12.05-12.35	11.75-12.75	16.60	14.50	13.07	12.20	11.05-11.45	11.90-12.60	11.35-12.35
Wheat--KC HRW ordinary ($/bu.)	3.33	--	--	3.18	3.30	3.26	--	--	--	--
Corn--Chicago ($/bu.)	2.03	--	--	2.10	2.01	2.09	--	--	--	--
Soybeans--Chicago ($/bu.)	4.58	--	--	4.89	4.45	4.42	4.86	--	--	--
Cotton--avg. spot 41-34 (cents/lb)	39.68	--	--	35.58	30.62	32.32	33.12	--	--	--
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Farm real estate values [4]										
Nominal ($ per acre)	713	740	798	844	887	926	974	1,020	1,080	1,130
Real (1996 $)	795	806	848	879	904	926	955	988	1,031	1,057
U.S. civilian employment (mil.)[5]	128.1	129.2	131.1	132.3	133.9	136.3	137.7	139.4	140.9	--
Food and fiber (mil.)	23.1	23.5	24.1	24.5	24.2	24.1	24.2	24.4	24.1	--
Farm sector (mil.)	1.9	1.8	1.9	2.0	2.0	1.9	1.8	1.8	1.7	--
U.S. gross domestic product ($ bil.)	6,318.9	6,642.3	7,054.3	7,400.5	7,813.2	8,318.4	8,781.5	9,268.6	9,872.9	--
Food and fiber--net value added ($ bil.)	924.8	957.6	1,026.6	1,048.2	1,078.9	1,101.9	1,132.7	1,180.6	1,264.5	--
Farm sector--net value added ($ bil.)[6]	75.5	70.2	77.8	73.5	85.7	82.6	74.0	66.9	82.0	--

-- = Not available. Annual and quarterly data for the most recent year contain forecasts. 1. Annual data based on Oct.-Sep. fiscal years ending year indicated. 2. Sep.-Nov. first quarter; Dec.-Feb. second quarter; Mar.-May third quarter; Jun.-Aug. fourth quarter; Sep.-Aug. annual. Use includes exports and domestic disappearance. 3. Simple averages, Jan.-Dec. 4. As of January 1. 5. Civilian labor force taken from "Monthly Lab Review," Table 18--Annual Data: Employment Status of the Population, Bureau of Labor Statistics, U.S. Department of Labor. 6. The value-added data presented here are consistent with accounting conventions of the National Income and Product Accounts, U.S. Department of Commerce

U.S. & Foreign Economic Data

Table 2—U.S. Gross Domestic Product & Related Data

	Annual			2000		2001				2002
	1999	2000	2001	III	IV	I	II	III	IV	I
	Billions of current dollars (quarterly data seasonally adjusted at annual rates)									
Gross Domestic Product	9,268.6	9,872.9	10,208.1	9,937.5	10,027.9	10,141.7	10,202.6	10,224.9	10,263.3	10,449.8
Gross National Product	9,261.8	9,860.8	10,202.8	9,919.4	10,032.1	10,131.3	10,190.9	10,213.8	10,275.3	10,428.6
Personal consumption expenditures	6,250.2	6,728.4	7,064.5	6,785.5	6,871.4	6,977.6	7,044.6	7,057.6	7,178.2	7,255.2
Durable goods	760.9	819.6	858.3	825.4	818.7	838.1	844.7	840.6	909.8	877.9
Nondurable goods	1,831.3	1,989.6	2,055.1	2,012.4	2,025.1	2,047.1	2,062.3	2,057.5	2,053.5	2,095.4
Food	899.8	957.5	991.6	967.2	971.4	982.0	987.0	993.5	1,003.9	1,026.9
Clothing and shoes	300.9	319.1	322.2	321.6	323.5	325.7	322.4	318.5	322.1	329.8
Services	3,658.0	3,919.2	4,151.1	3,947.7	4,027.5	4,092.4	4,137.6	4,159.4	4,214.9	4,281.8
Gross private domestic investment	1,636.7	1,767.5	1,633.9	1,788.4	1,780.3	1,722.8	1,669.9	1,624.8	1,518.2	1,597.6
Fixed investment	1,578.2	1,718.1	1,692.4	1,735.9	1,741.6	1,748.3	1,706.5	1,682.6	1,632.1	1,624.0
Change in private inventories	58.6	49.4	-58.4	85.5	38.7	-25.5	-36.6	-57.8	-113.9	-26.4
Net exports of goods and services	-250.9	-364.0	-329.8	-380.6	-390.6	-363.8	-347.4	-294.4	-313.5	-329.3
Government consumption expenditures and gross investment	1,632.5	1,741.0	1,839.5	1,744.2	1,766.8	1,805.2	1,835.4	1,836.9	1,880.4	1,926.3
	Billions of 1996 dollars (quarterly data seasonally adjusted at annual rates)[1]									
Gross Domestic Product	8,856.5	9,224.0	9,333.8	9,260.1	9,303.9	9,334.5	9,341.7	9,310.4	9,348.6	9,488.6
Gross National Product	8,853.0	9,216.4	9,333.6	9,247.2	9,311.7	9,329.1	9,335.5	9,304.9	9,364.7	9,475.3
Personal consumption expenditures	5,968.4	6,257.8	6,450.3	6,292.1	6,341.1	6,388.5	6,428.4	6,443.9	6,540.3	6,593.5
Durable goods	817.8	895.5	955.6	904.1	899.4	922.4	938.1	940.2	1,021.7	996.8
Nondurable goods	1,766.4	1,849.9	1,883.3	1,864.1	1,866.8	1,878.0	1,879.4	1,882.0	1,893.6	1,931.1
Food	847.8	881.3	886.2	886.2	886.4	887.3	886.1	883.8	887.6	902.7
Clothing and shoes	312.1	335.3	345.2	339.8	339.9	342.7	344.1	344.7	349.3	359.5
Services	3,393.2	3,527.7	3,633.4	3,540.2	3,588.8	3,605.1	3,629.8	3,640.4	3,658.2	3,692.6
Gross private domestic investment	1,660.1	1,772.9	1,630.8	1,788.8	1,778.3	1,721.0	1,666.2	1,620.5	1,515.5	1,599.5
Fixed investment	1,595.4	1,716.2	1,682.6	1,730.1	1,732.1	1,740.3	1,696.4	1,671.6	1,621.9	1,618.8
Change in private inventories	62.1	50.6	-61.7	51.7	42.8	-27.1	-38.3	-61.9	-119.3	-27.7
Net exports of goods and services	-316.9	-399.1	-408.7	-411.2	-421.1	-404.5	-406.7	-411.0	-412.7	-434.5
Government consumption expenditures and gross investment	1,531.8	1,572.6	1,628.6	1,570.0	1,582.8	1,603.4	1,623.0	1,624.1	1,663.9	1,690.9
GDP implicit price deflator (% change)	1.4	2.3	2.2	1.9	1.8	3.3	2.1	2.2	-0.1	1.3
Disposable personal income ($ bil.)	6,618.0	7,031.0	7,417.3	7,081.3	7,189.8	7,295.0	7,363.2	7,576.4	7,434.5	7,700.4
Disposable pers. income (1996 $ bil.)	6,320.0	6,539.2	6,772.4	6,566.5	6,634.9	6,679.0	6,719.2	6,917.5	6,773.8	6,998.1
Per capita disposable pers. income ($)	23,708	24,889	25,943	25,029	25,331	25,634	25,798	26,457	25,880	26,733
Per capita disp. pers. income (1996 $)	22,641	23,148	23,687	23,209	23,376	23,470	23,541	24,157	23,580	24,295
U.S. resident population plus Armed Forces overseas (mil.)[2]	272.9	275.4	--	275.6	276.3	--	--	--	--	--
Civilian population (mil.)[2]	271.5	273.9	--	274.2	274.9	--	--	--	--	--

	Annual			2001		2002				
	1999	2000	2001	May	Dec	Jan	Feb	Mar	Apr	May
	Monthly data seasonally adjusted									
Total industrial production (1992=100)	144.7	151.6	144.8	146.4	141.6	142.6	142.9	143.5	143.8	144.1
Leading economic indicators (1996=100)	108.8	109.9	109.5	109.3	111.4	111.9	112.0	112.0	111.7	112.4
Civilian employment (mil. persons)	133.5	135.2	135.1	135.2	134.1	133.5	134.3	133.9	134.0	134.4
Civilian unemployment rate (%)	4.2	4.0	4.8	4.4	5.8	5.6	5.5	5.7	6.0	5.8
Personal income ($ bil. annual rate)	7,777.3	8,319.2	8,723.5	8,709.3	8,784.8	8,840.7	8,889.0	8,928.4	8,949.1	8,972.2
Money stock-M2 (daily avg.) ($ bil.)[3]	4,650.3	4,936.0	5,454.8	5,137.5	5,454.8	5,466.6	5,500.6	5,497.2	5,479.8	5,543.1
Three-month Treasury bill rate (%)	4.66	5.85	3.45	3.67	1.72	1.66	1.73	1.81	1.72	1.74
AAA corporate bond yield (Moody's) (%)	7.04	7.62	7.08	7.29	6.76	6.55	6.51	6.81	6.76	6.75
Total housing starts (1,000)[4]	1,640.9	1,568.7	1,602.7	1,604	1,583	1,713	1,788	1,675	1,553	1,733
Business inventory/sales ratio[5 6]	1.41	1.42	1.43	1.43	1.40	1.38	1.39	1.38	1.35	--
Retail & food services sales ($ bil.)[6 7]	3,149.2	3,388.8	3,504.2	290.6	296.6	296.1	296.5	296.2	299.6	296.4
Food and beverage stores ($ bil.)	441.4	465.3	481.1	39.3	40.8	40.9	40.2	40.1	39.9	40.0
Clothing & accessory stores ($ bil.)	159.7	168.5	169.7	14.1	14.4	14.7	14.7	14.7	14.6	14.3
Food services & drinking places ($ bil.)	286.3	306.1	321.0	26.6	28.4	27.6	28.1	28.0	28.1	28.1

-- = Not available. 1. In October 1999, 1996 dollars replaced 1992 dollars. 2. Population estimates based on 1990 census. 3. Annual data as of December of year listed. 4. Private, including farm. 5. Manufacturing and trade. 6. In July 2001, all numbers were revised due to a changeover from the Standard Industrial Classification System to the North American Industry Classification System. 7. Annual total.

Information contact: David Johnson (202) 694-5222

Table 3—World Economic Growth

	Calendar year									
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	Real GDP, annual percent change									
World	3.1	2.8	3.5	3.4	1.9	2.8	3.9	1.3	1.9	3.1
less U.S.	2.7	2.8	3.4	3.0	1.0	2.4	3.9	1.4	1.6	3.0
Developed economies	2.8	2.3	3.1	3.0	2.1	2.7	3.5	1.0	1.5	2.5
less U.S.	2.1	2.2	2.8	2.3	1.0	1.9	3.1	0.9	0.9	2.2
United States	4.0	2.7	3.6	4.4	4.3	4.1	4.1	1.2	2.6	3.2
Canada	4.7	2.7	1.5	4.4	3.3	4.6	4.6	1.5	3.3	3.2
Japan	0.6	1.5	5.1	1.6	-2.5	0.2	2.2	-0.5	-0.5	0.8
Australia	4.5	4.5	3.8	4.7	4.5	4.4	2.0	2.6	3.8	3.9
European Union	2.8	2.4	1.6	2.5	2.8	2.7	3.6	1.5	1.3	2.7
Transition economies	-8.1	-1.3	-0.8	1.4	-1.4	3.5	6.3	4.5	3.6	3.9
Eastern Europe	3.9	5.6	4.0	2.7	2.7	2.5	3.9	2.7	2.5	4.2
Poland	5.2	7.0	6.0	6.8	4.8	4.1	4.2	1.1	1.3	4.0
Former Soviet Union	-14.1	-5.4	-4.0	0.5	-4.4	4.2	8.1	5.9	4.4	3.7
Russia	-12.6	-4.1	-3.4	0.9	-4.9	5.0	8.3	5.1	4.0	3.5
Developing economies	6.3	5.3	5.8	5.3	1.2	3.4	5.7	2.3	3.1	5.0
Asia	8.8	8.3	7.4	5.8	0.4	6.4	7.2	3.7	5.6	6.2
East Asia	9.7	8.7	7.7	7.0	1.9	7.4	8.3	4.1	6.3	6.2
China	12.8	10.5	9.6	8.8	7.8	7.1	8.0	7.4	7.8	7.2
Taiwan	7.1	6.4	6.1	6.7	4.6	5.4	5.9	-1.9	3.2	4.1
Korea	8.2	8.9	6.8	5.0	-6.7	10.7	9.5	3.0	6.5	5.7
Southeast Asia	8.3	8.3	7.3	4.0	-7.5	3.6	6.1	1.8	3.9	6.2
Indonesia	7.5	8.2	7.8	4.7	-13.2	0.7	4.8	3.4	3.5	6.5
Malaysia	9.2	9.8	10.0	7.3	-7.4	5.8	8.4	0.5	4.0	7.8
Philippines	4.4	4.7	5.8	5.2	-0.8	3.2	4.4	3.2	4.0	4.3
Thailand	9.0	8.9	5.9	-1.7	-10.2	4.2	4.7	1.8	4.4	5.2
South Asia	6.6	7.1	6.3	4.2	6.1	6.1	4.8	4.7	5.2	5.8
India	7.3	7.7	7.0	4.6	6.8	6.5	4.8	4.9	5.6	6.1
Pakistan	3.9	5.1	3.9	1.0	2.5	4.0	3.9	3.4	3.7	5.0
Latin America	5.3	1.4	3.7	5.2	1.8	0.0	3.7	0.3	-1.1	3.4
Mexico	4.4	-6.2	5.2	6.8	4.9	3.5	6.7	-0.3	1.4	4.8
Caribbean/Central	4.1	3.8	3.6	6.4	6.8	6.9	4.9	1.5	2.4	5.8
South America	5.6	3.1	3.3	4.8	1.0	-1.1	2.9	0.4	-1.8	2.9
Argentina	5.8	-2.8	5.5	8.1	3.9	-3.2	-0.8	-4.4	-13.8	1.9
Brazil	5.9	4.2	2.8	3.2	-0.1	0.8	4.4	1.6	1.4	3.6
Colombia	5.8	5.2	2.1	3.4	0.5	-4.3	2.2	1.6	0.5	1.8
Venezuela	-2.3	3.7	-0.5	6.5	-0.7	-6.1	3.2	3.2	-4.1	-1.5
Middle East	-0.3	4.4	4.7	4.4	2.7	-0.8	5.6	-0.9	2.1	4.0
Israel	6.9	7.0	5.1	3.2	2.6	2.2	5.9	-0.6	-2.3	1.4
Saudi Arabia	0.5	0.5	1.4	1.9	2.3	-0.8	4.5	2.2	-0.5	3.2
Turkey	-5.5	7.2	7.0	7.5	3.1	-4.7	7.2	-7.1	4.5	5.4
Africa	3.2	2.9	5.2	2.8	3.1	2.6	3.5	3.4	2.3	3.7
North Africa	3.9	1.5	6.5	2.6	5.6	3.8	3.5	4.2	2.6	3.9
Egypt	3.9	4.7	5.0	5.5	5.6	6.0	5.2	3.3	1.7	3.5
Sub-Sahara	2.6	3.9	4.3	3.0	1.3	1.7	3.6	2.8	2.0	3.6
South Africa	3.2	3.1	4.2	2.5	0.6	1.2	3.4	2.2	2.1	3.4
	Consumer prices, annual percent change									
Developed economies	3.1	2.6	2.6	2.4	2.1	1.5	1.4	2.3	2.4	1.7
Transition economies	635.8	274.2	133.8	42.5	27.3	21.8	43.9	20.0	16.4	10.7
Developing economies	49.2	55.3	23.2	15.4	9.9	10.5	6.8	6.0	5.9	5.1
Asia	10.8	16.0	13.2	8.3	4.8	7.7	2.5	1.9	2.8	3.3
Latin America	194.6	200.3	36.0	21.2	12.9	9.9	8.8	8.1	6.2	4.9
Middle East	29.4	37.3	39.1	29.6	27.7	27.6	23.2	19.2	18.9	14.5
Africa	39.0	54.7	35.3	30.2	14.2	10.8	11.5	13.6	12.6	8.0

The last 3 years are either estimates or forecasts. Sources: Oxford Economic Forecasting; International Financial Statistics, IMF.

Information contact: David Torgerson (202) 694-5334, dtorg@ers.usda.gov

Farm Prices

Table 4—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			2001	2002					
	2000	2001	2002	Jun	Jan	Feb	Mar	Apr	May	Jun
					1990-92=100					
Prices received										
All farm products	96	102	99	107	95	99	105	95	97	98
All crops	96	99	103	102	93	101	117	100	106	105
Food grains	85	91	85	91	88	84	85	84	86	93
Feed grains and hay	86	91	91	90	90	91	91	92	94	96
Cotton	82	65	49	65	48	47	49	48	47	50
Tobacco	107	107	105	--	111	108	95	--	--	--
Oil-bearing crops	85	80	78	80	76	76	79	80	83	87
Fruit and nuts, all	99	107	87	120	84	85	92	85	106	118
Commercial vegetables	121	127	189	120	162	191	271	125	124	118
Potatoes and dry beans	93	98	135	97	117	132	145	147	173	161
Livestock and products	97	106	95	113	97	97	95	90	90	90
Meat animals	94	97	91	104	90	93	92	87	85	84
Dairy products	94	115	99	124	103	100	97	96	93	91
Poultry and eggs	106	116	100	117	109	100	101	91	96	102
Prices paid										
Commodities and services, interest, taxes, and wage rates (PPITW)	120	124	123	124	122	122	123	123	123	123
Production items	116	120	118	120	117	117	118	119	118	117
Feed	102	109	108	107	107	106	109	110	109	108
Livestock and poultry	110	111	106	113	109	110	106	102	98	95
Seeds	124	132	137	134	134	134	134	144	144	144
Fertilizer	110	123	106	123	105	104	107	107	108	109
Agricultural chemicals	120	120	119	120	122	121	119	119	118	118
Fuels	134	121	103	132	82	84	112	114	110	109
Supplies and repairs	124	128	129	128	128	128	129	129	130	130
Autos and trucks	119	118	117	118	118	117	116	116	116	115
Farm machinery	139	144	146	144	141	141	147	147	147	147
Building material	121	121	121	122	121	121	121	122	122	122
Farm services	119	121	120	122	120	120	120	119	120	120
Rent	110	117	120	117	120	120	120	120	120	120
Interest payable per acre on farm real estate debt	110	117	120	114	109	109	109	109	109	109
Taxes payable per acre on farm real estate	123	124	126	124	126	126	126	126	126	126
Wage rates (seasonally adjusted)	140	146	155	144	148	155	155	153	153	153
Prod. items, interest, taxes & wage rates (PITW)	118	122	121	122	120	120	121	121	121	120
Ratio, prices received to prices paid (%)*	81	82	80	86	78	81	85	77	79	80
Prices received (1910-14=100)	612	648	626	682	605	628	670	601	619	620
Prices paid, etc. (1910-14=100)	1,594	1,646	1,637	1,650	1,619	1,624	1,641	1,643	1,638	1,634
Parity ratio (1910-14=100) (%)*	38	39	38	41	37	39	41	37	38	38

Values for the two most recent months are revised or preliminary. *Ratio of index of prices received for all farm products to index of prices paid for commodities and services, interest, taxes, and wage rates. Ratio uses the most recent prices paid index.

Data for this table are taken from the publication *Agricultural Prices*, which is produced monthly by USDA's National Agricultural Statistics Service (NASS) and is available at http://usda.mannlib.cornell.edu/reports/nassr/price/pap-bb/. For historical data or for categories not listed here, call the NASS Information Hotline at 1-800-727-9540, or access the NASS Home Page at http://www.usda.gov/nass.

Table 5—Prices Received by Farmers, U.S. Average

	Annual[1]			2001	2002					
	1998	1999	2000	Jun	Jan	Feb	Mar	Apr	May	Jun
Crops										
All wheat ($/bu.)	2.65	2.48	2.65	2.74	2.87	2.83	2.87	2.84	2.81	2.86
Rice, rough ($/cwt)	8.89	5.93	5.75	5.14	3.94	4.10	3.97	3.88	3.96	3.92
Corn ($/bu.)	1.94	1.82	1.85	1.76	1.97	1.93	1.94	1.91	1.93	1.94
Sorghum ($/cwt)	2.97	2.80	3.15	3.62	3.34	3.26	3.22	3.14	3.17	3.33
All hay, baled ($/ton)	84.60	76.90	83.00	95.80	93.00	90.40	91.40	99.90	102.00	95.80
Soybeans ($/bu.)	4.93	4.63	4.75	4.46	4.22	4.21	4.38	4.47	4.64	4.79
Cotton, upland (¢/lb.)	60.20	45.00	56.00	39.20	28.90	28.70	29.90	29.30	28.60	30.30
Potatoes ($/cwt)	5.56	5.77	4.95	5.75	6.90	7.60	8.50	8.63	10.40	9.63
Lettuce ($/cwt)[2]	16.10	13.30	17.50	12.10	26.20	44.10	86.40	13.70	9.97	9.82
Tomatoes, fresh ($/cwt)[2]	35.20	25.80	31.40	28.50	40.50	26.60	38.50	32.30	30.00	31.00
Onions ($/cwt)	13.80	9.78	11.40	15.30	9.48	8.27	6.92	19.00	21.80	21.40
Beans, dry edible ($/cwt)	19.00	16.40	15.30	16.40	21.10	26.20	26.60	27.20	27.50	27.00
Apples for fresh use (¢/lb.)	17.30	21.30	17.90	14.90	21.70	21.40	21.00	21.50	21.80	20.10
Pears for fresh use ($/ton)	291.00	294.00	264.00	--	282.00	276.00	267.00	267.00	267.00	337.00
Oranges, all uses ($/box)[3]	4.29	5.54	--	3.77	3.89	4.42	4.88	4.30	4.82	4.13
Grapefruit, all uses ($/box)[3]	2.00	3.27	--	3.44	1.98	1.70	1.23	1.02	1.05	4.16
Livestock										
Cattle, all beef ($/cwt)	59.60	63.40	68.60	73.60	67.10	69.90	70.70	67.20	65.20	63.00
Calves ($/cwt)	78.80	87.70	104.00	110.00	102.00	105.00	104.00	100.00	98.50	94.90
Hogs, all ($/cwt)	34.40	30.30	42.30	52.20	37.70	38.50	36.00	31.80	33.10	34.50
Lambs ($/cwt)	72.30	74.50	79.40	71.60	65.50	67.40	66.30	64.30	64.30	--
All milk, sold to plants ($/cwt)	15.46	14.38	12.40	16.20	13.40	13.10	12.70	12.50	12.20	11.90
Milk, manuf. grade ($/cwt)	14.24	12.84	10.54	14.90	12.40	12.00	11.30	11.30	11.10	10.80
Broilers, live (¢/lb.)	39.30	37.10	33.60	41.00	37.00	34.00	32.00	30.00	32.00	33.00
Eggs, all (¢/doz.)[4]	66.80	62.20	61.80	55.00	62.30	55.90	68.50	51.90	50.50	63.30
Turkeys (¢/lb.)	38.00	40.80	40.70	38.30	34.10	34.10	32.90	32.60	35.50	36.90

-- = Not available.

Values for the two most recent months are revised or preliminary. 1. Season-average price by crop year for crops. Calendar year average of monthly prices for livestock. 2. Excludes Hawaii. 3. Equivalent on-tree returns. 4. Average of all eggs sold by producers including hatching eggs and eggs sold at retail.

Data for this table are taken from the publication *Agricultural Prices*, which is produced monthly by USDA's National Agricultural Statistics Service (NASS) and is available at http://usda.mannlib.cornell.edu/reports/nassr/price/pap-bb/. For historical data or for categories not listed here, call the NASS Information Hotline at 1-800-727-9540, or access the NASS Home Page at http://www.usda.gov/nass.

Producer & Consumer Prices

Table 6—Consumer Price Indexes for All Urban Consumers, U.S. Average (not seasonally adjusted)

	Annual			2001	2002					
	1999	2000	2001	Jun	Jan	Feb	Mar	Apr	May	Jun
					1982-84=100					
Consumer Price Index, all items	166.6	172.1	177.1	178.0	177.1	177.8	178.8	179.8	179.8	179.9
CPI, all items less food	167.0	172.9	177.8	179.0	177.4	178.2	179.2	180.4	180.4	180.6
All food	164.1	167.8	173.1	173.0	175.8	175.9	176.1	176.2	175.8	175.8
Food away from home	165.1	169.0	173.9	173.6	176.4	177.0	177.1	177.2	177.6	178.2
Food at home	164.2	167.9	173.4	173.3	176.2	176.0	176.3	176.4	175.5	175.0
Meats [1]	142.3	150.7	159.3	160.2	160.0	159.9	161.3	160.6	160.6	160.5
Beef and veal	139.2	148.1	160.5	162.5	159.7	160.7	161.8	162.3	162.1	160.2
Pork	145.9	156.5	162.4	162.6	163.7	163.3	163.2	161.3	161.7	162.7
Poultry	157.9	159.8	164.9	164.5	166.8	167.8	168.0	166.9	167.0	165.6
Fish and seafood	185.3	190.4	191.1	191.5	189.2	186.0	185.6	189.2	191.0	188.1
Eggs	128.1	131.9	136.4	130.8	138.4	138.6	141.0	138.4	131.8	136.0
Dairy and related products[2]	159.6	160.7	167.1	166.9	169.9	170.1	169.4	168.7	169.0	168.0
Fats and oils [3]	148.3	147.4	155.7	156.7	158.3	157.2	156.4	156.5	155.9	154.6
Fresh fruits	266.3	258.3	265.1	268.3	276.4	263.5	265.5	266.9	278.1	266.7
Fresh vegetables	209.3	219.4	230.6	226.4	251.6	258.1	265.3	255.9	238.6	239.3
Potatoes	193.1	196.3	202.3	205.0	213.4	225.7	230.2	244.1	248.0	253.4
Cereals and bakery products	185.0	188.3	193.8	194.2	196.7	197.6	197.0	198.1	198.2	198.7
Sugar and sweets	152.3	154.0	155.7	155.7	158.4	158.5	157.2	159.6	157.9	158.7
Nonalcoholic beverages [4]	134.3	137.8	139.2	138.6	139.5	140.0	140.1	140.0	138.0	137.5
Apparel										
Footwear	125.7	123.8	123.0	122.1	117.1	119.5	123.5	124.6	124.5	121.2
Tobacco and smoking products	355.8	394.9	425.2	421.0	432.8	449.3	433.4	461.4	449.0	467.4
Alcoholic beverages	169.7	174.7	179.3	179.1	181.8	182.6	182.5	182.9	183.3	183.5

1. Beef, veal, lamb, pork, and processed meat. 2. Included butter through December 1997. 3. Includes butter as of January 1998.
4. Includes fruit juices as of January 1998.
This table is compiled with data provided by the Bureau of Labor Statistics (BLS). BLS operates a website at http://www.bls.gov and a Consumer Prices Information Hotline at (202) 691-7000.

Table 7—Producer Price Indexes, U.S. Average (not seasonally adjusted)

	Annual			2001	2002					
	1999	2000	2001	Jun	Jan	Feb	Mar	Apr	May	Jun
					1982=100					
All commodities	125.5	132.7	134.2	135.5	128.5	128.4	129.9	131.0	131.0	131.1
Finished goods[1]	133.0	138.0	140.7	142.2	137.4	137.7	138.9	139.0	138.8	139.2
All foods[2]	132.2	133.0	137.3	138.0	136.5	137.7	139.1	134.2	134.5	134.8
Consumer foods	135.1	137.2	141.3	142.0	141.1	142.3	143.7	139.2	139.4	139.6
Fresh fruits and melons	103.6	91.4	97.7	100.6	108.5	94.4	89.7	84.0	101.8	89.6
Fresh and dry vegetables	118.0	126.7	124.7	120.5	144.7	176.7	217.0	116.1	118.1	131.9
Dried and dehydrated fruits	121.2	122.9	118.5	118.4	119.2	118.9	119.6	118.9	118.9	119.0
Canned fruits and juices	137.8	140.0	143.6	144.3	143.7	143.1	143.5	143.4	143.4	137.4
Frozen fruits, juices and ades	123.0	120.9	114.1	112.3	118.0	115.1	118.9	115.4	115.0	115.0
Fresh vegetables except potatoes	117.7	135.0	135.2	129.4	146.1	188.7	242.5	101.7	107.2	123.2
Canned vegetables and juices	120.9	121.2	123.8	121.9	128.3	128.2	128.1	127.9	128.4	127.8
Frozen vegetables	126.1	126.0	128.6	127.7	130.0	131.1	130.2	130.6	130.8	130.0
Potatoes	126.9	100.5	128.9	147.6	180.1	179.0	181.8	218.6	203.6	222.0
Eggs for fresh use (1991=100)	77.9	84.9	81.8	71.8	89.4	74.5	92.6	71.2	66.2	85.5
Bakery products	178.0	182.3	187.7	188.1	188.8	189.3	189.6	189.7	189.5	189.4
Meats	104.6	114.3	120.3	123.1	113.2	116.9	118.6	115.7	112.9	113.6
Beef and veal	106.3	113.7	120.6	122.5	111.9	119.6	121.0	117.9	114.4	116.1
Pork	96.0	113.4	120.3	124.7	112.7	112.9	115.0	109.9	107.9	108.5
Processed poultry	114.0	112.9	116.8	117.6	115.5	114.4	114.1	110.9	113.0	112.5
Unprocessed and packaged fish	190.9	198.1	190.8	182.2	184.2	203.8	184.2	187.0	193.1	183.2
Dairy products	139.2	133.7	145.2	150.4	140.0	139.1	138.1	137.7	136.2	135.2
Processed fruits and vegetables	128.1	128.6	129.6	128.8	132.4	132.3	132.0	131.8	132.1	130.4
Shortening and cooking oil	140.4	132.4	132.9	131.1	133.1	131.2	132.1	133.6	135.8	138.7
Soft drinks	137.9	144.1	148.2	147.4	150.3	152.1	151.9	151.6	151.4	151.7
Finished consumer goods less foods	130.5	138.4	141.4	144.1	135.4	135.4	137.2	139.2	138.8	139.6
Alcoholic beverages	136.7	140.6	145.4	145.5	146.6	146.5	146.9	147.1	147.4	147.4
Apparel	127.1	127.4	126.8	126.7	126.2	125.7	125.3	124.4	124.5	125.1
Footwear	144.5	144.9	145.8	145.7	146.0	146.0	145.8	145.7	145.7	146.0
Tobacco products	374.0	397.2	441.9	447.8	447.9	448.0	448.7	466.0	466.1	466.4
Intermediate materials[3]	123.2	129.2	129.7	131.4	125.5	125.2	126.5	127.6	127.2	127.9
Materials for food manufacturing	120.8	119.2	124.3	125.7	122.1	122.6	123.2	122.0	121.4	122.1
Flour	104.3	103.8	109.9	110.9	112.3	112.3	113.8	107.9	110.1	111.4
Refined sugar[4]	121.0	110.6	109.9	109.2	114.4	115.5	116.5	118.8	117.3	118.1
Crude vegetable oils	90.2	73.6	70.1	71.0	75.1	70.1	70.7	72.1	73.8	84.3
Crude materials[5]	98.2	120.6	121.0	120.6	98.9	98.0	102.3	107.9	110.5	106.4
Foodstuffs and feedstuffs	98.7	100.2	106.1	109.8	99.6	102.0	102.9	96.4	98.4	97.1
Fruits and vegetables and nuts[6]	117.4	111.1	114.4	114.6	128.6	134.4	148.6	103.0	113.7	112.8
Grains	80.1	78.3	81.2	77.6	82.2	80.9	81.3	79.4	82.8	82.1
Slaughter livestock	86.4	96.5	99.6	106.0	89.7	96.4	98.4	90.1	90.3	86.6
Slaughter poultry, live	129.9	124.7	130.7	131.9	124.7	119.9	118.8	112.7	120.8	128.8
Plant and animal fibers	86.5	93.9	67.2	63.5	54.9	56.6	55.2	54.3	52.2	58.2
Fluid milk	106.3	92.0	111.8	121.2	100.2	98.0	94.8	93.3	92.7	89.0
Oilseeds	90.8	93.8	89.7	91.3	85.5	85.3	88.7	90.6	91.7	96.9
Leaf tobacco	101.6	--	105.2	--	113.2	110.2	81.7	--	--	--
Raw cane sugar	113.7	101.8	111.4	109.8	112.0	109.9	105.8	104.4	105.1	105.6

-- = Not available. 1. Commodities ready for sale to ultimate consumer. 2. Includes all raw, intermediate, and processed foods (excludes soft drinks, alcoholic beverages, and manufactured animal feeds). 3. Commodities requiring further processing to become finished goods. 4. All types and sizes of refined sugar. 5. Products entering market for the first time that have not been manufactured at that point. 6. Fresh and dried. This table is compiled with data provided by the Bureau of Labor Statistics (BLS). BLS operates a website at http://www.bls.gov and a Producer Prices Information Hotline at (202) 691-7705.

Farm-Retail Price Spreads

Table 8—Farm-Retail Price Spreads

	Annual		2001		2002					
	1999	2000	2001	Jun	Jan	Feb	Mar	Apr	May	Jun
Market basket[1]										
Retail cost (1982-84=100)	167.3	170.6	177.2	177.2	180.7	180.4	181.0	180.9	180.2	179.6
Farm value (1982-84=100)	98.3	96.9	106.2	107.5	106.8	105.2	108.7	102.6	102.8	103.2
Farm-retail spread (1982-84=100)	204.5	210.3	215.4	214.8	220.6	221.0	220.0	223.0	221.9	220.7
Farm value-retail cost (%)	20.6	19.9	21.0	21.2	20.7	20.4	21.0	19.9	20.0	20.1
Meat products										
Retail cost (1982-84=100)	142.3	150.4	159.3	160.2	160.0	159.9	161.3	160.6	160.6	160.5
Farm value (1982-84=100)	81.6	88.4	97.4	98.8	101.1	100.9	101.3	101.6	101.8	101.8
Farm-retail spread (1982-84=100)	204.7	214.0	222.8	223.2	220.4	220.5	222.9	221.2	221.0	220.7
Farm value-retail cost (%)	29.0	29.8	31.0	31.2	32.0	31.9	31.8	32.0	32.1	32.1
Dairy products										
Retail cost (1982-84=100)	159.6	160.7	167.1	166.9	169.9	170.1	169.4	168.7	169.0	168.0
Farm value (1982-84=100)	107.9	98.8	118.5	127.4	106.1	104.0	101.7	100.0	98.5	94.6
Farm-retail spread (1982-84=100)	207.2	217.7	211.8	203.3	228.7	231.0	231.9	232.0	234.0	235.7
Farm value-retail cost (%)	32.4	29.5	34.0	36.6	30.0	29.3	28.8	28.4	28.0	27.0
Poultry										
Retail cost (1982-84=100)	157.9	159.8	164.9	164.5	166.8	167.8	168.0	166.9	167.0	165.6
Farm value (1982-84=100)	119.0	117.4	126.2	129.8	116.8	108.7	102.7	97.1	103.9	107.3
Farm-retail spread (1982-84=100)	202.7	208.7	209.3	204.5	224.4	235.9	243.2	247.3	239.6	232.7
Farm value-retail cost (%)	40.3	39.3	41.0	42.2	37.5	34.7	32.7	31.1	33.3	34.7
Eggs										
Retail cost (1982-84=100)	128.1	131.9	136.4	130.8	138.4	138.6	141.0	138.4	131.8	136.0
Farm value (1982-84=100)	74.9	80.6	74.3	61.5	77.4	62.9	88.5	55.2	51.0	76.5
Farm-retail spread (1982-84=100)	223.7	223.9	248.0	255.2	248.1	274.6	235.3	287.9	276.9	242.9
Farm value-retail cost (%)	37.6	39.3	35.0	30.2	35.9	29.2	40.3	25.6	24.9	36.1
Cereal and bakery products										
Retail cost (1982-84=100)	185.0	188.3	193.8	194.2	196.7	197.6	197.0	198.1	198.2	198.7
Farm value (1982-84=100)	82.5	75.2	78.8	77.7	77.6	76.3	77.3	75.1	76.1	78.3
Farm-retail spread (1982-84=100)	199.2	204.0	209.9	210.5	213.3	214.5	213.7	215.3	215.2	215.5
Farm value-retail cost (%)	5.5	4.9	5.0	4.9	4.8	4.7	4.8	4.6	4.7	4.8
Fresh fruit										
Retail cost (1982-84=100)	294.3	284.3	291.7	295.4	305.2	289.9	291.5	294.0	306.9	293.4
Farm value (1982-84=100)	153.7	141.3	145.7	128.7	168.7	162.4	157.4	152.7	151.7	131.2
Farm-retail spread (1982-84=100)	359.3	350.3	359.1	372.4	368.2	348.8	353.4	359.2	378.5	368.3
Farm value-retail cost (%)	16.5	15.7	15.8	13.8	17.5	17.7	17.1	16.4	15.6	14.1
Fresh vegetables										
Retail cost (1982-84=100)	209.3	219.4	230.6	226.4	251.6	258.1	265.3	255.9	238.6	239.3
Farm value (1982-84=100)	118.1	121.4	129.9	135.7	141.5	154.7	214.2	147.8	142.9	152.6
Farm-retail spread (1982-84=100)	256.2	269.8	282.4	273.0	308.2	311.2	291.6	311.5	287.8	283.9
Farm value-retail cost (%)	19.2	18.8	19.1	20.4	19.1	20.4	27.4	19.6	20.3	21.7
Processed fruits and vegetables										
Retail cost (1982-84=100)	154.8	153.6	159.3	159.5	161.7	162.3	162.9	164.5	165.7	164.4
Farm value (1982-84=100)	113.5	106.4	107.9	106.6	111.6	111.5	112.8	113.7	114.4	113.6
Farm-retail spread (1982-84=100)	167.7	168.3	175.3	176.0	177.3	178.1	178.5	180.3	181.7	180.3
Farm value-retail cost (%)	17.4	16.5	16.1	15.9	16.4	16.3	16.5	16.4	16.4	16.4
Fats and oils										
Retail cost (1982-84=100)	148.3	147.4	155.7	155.7	158.3	157.2	156.4	156.5	155.9	154.6
Farm value (1982-84=100)	89.0	80.9	76.9	90.5	76.2	75.6	79.6	79.0	82.7	90.6
Farm-retail spread (1982-84=100)	170.0	171.9	184.7	191.3	188.5	187.2	184.7	185.0	182.8	178.1
Farm value-retail cost (%)	16.2	14.8	13.3	20.5	12.9	12.9	13.7	13.6	14.3	15.8

See footnotes at end of table, next page.

Table 8—Farm-Retail Price Spreads (continued)

	Annual			2001	2002					
	1999	2000	2001	Jun	Jan	Feb	Mar	Apr	May	Jun
Beef, all fresh retail value (cents/lb.)	260.5	275.3	300.5	304.7	305.1	307.9	306.3	306.5	309.3	301.7
Beef, Choice										
Retail value (cents/lb.)[2]	287.8	306.4	337.7	347.6	330.8	330.5	329.8	333.5	333.5	330.0
Wholesale value (cents/lb.)[3]	171.6	182.3	192.1	198.3	175.2	188.2	188.6	182.8	180.7	178.7
Net farm value (cents/lb.)[4]	141.1	149.0	154.5	157.7	145.4	155.1	155.6	145.6	141.4	138.6
Farm-retail spread (cents/lb.)	146.7	157.4	183.2	189.9	185.4	175.4	174.2	187.9	192.1	191.4
Wholesale-retail (cents/lb.)[5]	116.2	124.1	145.6	149.3	155.6	142.3	141.2	150.7	152.8	151.3
Farm-wholesale (cents/lb.)[6]	30.5	33.3	37.6	40.6	29.8	33.1	33.0	37.2	39.3	40.1
Farm value-retail value (%)	49.0	48.6	45.8	45.4	44.0	46.9	47.2	43.7	42.4	42.0
Pork										
Retail value (cents/lb.)[2]	241.5	258.2	269.4	270.9	270.8	271.7	270.3	266.7	269.9	266.6
Wholesale value (cents/lb.)[3]	99.0	114.5	117.8	128.4	108.4	108.3	104.6	98.2	99.3	102.6
Net farm value (cents/lb.)[4]	60.4	79.4	81.2	97.0	71.5	72.4	66.7	58.6	61.6	66.2
Farm-retail spread (cents/lb.)	181.1	178.8	188.2	173.9	199.3	199.3	203.6	208.1	208.3	200.4
Wholesale-retail (cents/lb.)[5]	142.5	143.7	151.6	142.5	162.4	163.4	165.7	168.5	170.6	164.0
Farm-wholesale (cents/lb.)[6]	38.6	35.1	36.6	31.4	36.9	35.9	37.9	39.6	37.7	36.4
Farm value-retail value (%)	25.0	30.8	30.1	35.8	26.4	26.6	24.7	22.0	22.8	24.8

1. Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by the Bureau of Labor Statistics (BLS). Farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for by-product. Farm values are based on prices at first point of sale, and may include marketing charges such as grading and packing for some commodities. The farm-retail spread, the difference between the retail value and farm value, represents charges for assembling, processing, transporting, and distributing. 2. Weighted-average value of retail cuts from pork and Choice yield grade 3 beef. Prices from BLS. 3. Value of wholesale (boxed beef) and wholesale cuts (pork) equivalent to 1 pound of retail cuts adjusted for transportation costs and by-product values. 4. Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of by-products. 5. Charges for retailing and other marketing services such as wholesaling and in-city transportation. 6. Charges for livestock marketing, processing, and transportation. *Information contacts: Veronica Jones (202) 694-5387, William F. Hahn (202) 694-5175*

Table 9—Price Indexes of Food Marketing Costs

	Annual			2000	2001				2002	
	1999	2000	2001	IV	I	II	III	IV	I	II
					*1987=100**					
Labor—hourly earnings and benefits	503.3	514.0	533.8	521.7	527.5	531.8	534.4	541.5	548.2	551.6
Processing	511.4	525.0	544.8	531.3	536.4	542.7	546.5	553.4	554.6	560.6
Wholesaling	564.6	589.4	615.4	601.0	606.4	611.3	618.7	625.5	625.8	625.8
Retailing	465.8	469.9	486.9	477.2	483.8	485.8	485.2	492.7	507.5	509.7
Packaging and containers	399.4	412.0	415.9	413.7	414.2	417.8	416.6	414.9	415.6	416.1
Paperboard boxes and containers	373.0	407.7	411.7	413.5	412.0	413.1	412.1	409.7	406.9	403.7
Metal cans	486.6	452.5	444.4	440.1	441.5	444.3	446.0	445.7	451.6	454.2
Paper bags and related products	440.9	470.4	475.7	474.5	474.2	481.3	474.6	472.6	473.8	474.0
Plastic films and bottles	324.2	336.7	344.2	344.3	344.0	345.8	344.4	342.6	340.2	339.7
Glass containers	447.1	450.8	469.7	450.8	460.2	471.7	473.7	473.0	480.8	494.6
Metal foil	227.3	232.4	241.4	234.8	235.5	246.1	242.7	241.4	241.6	243.1
Transportation services	394.0	394.3	404.0	396.9	401.0	403.1	406.3	405.9	405.3	405.3
Advertising	623.7	635.7	646.6	638.6	644.3	645.6	646.0	649.3	660.0	662.9
Fuel and power	651.5	841.1	803.5	859.6	830.3	826.6	826.4	730.7	699.3	748.5
Electric	489.4	498.2	532.3	504.9	514.3	526.1	559.9	529.1	516.8	526.0
Petroleum	565.9	1,135.8	912.7	1,166.4	998.5	974.7	937.2	740.4	678.2	808.6
Natural gas	1,235.6	1,275.4	1,354.3	1,305.7	1,403.3	1,391.5	1,363.3	1,259.1	1,226.6	1,247.8
Communications, water and sewage	309.3	309.1	313.7	309.5	312.6	312.5	314.2	315.5	317.1	315.9
Rent	256.9	258.2	257.5	259.0	259.2	257.7	257.1	256.0	254.8	254.7
Maintenance and repair	541.6	561.2	582.3	569.7	574.8	578.8	585.2	590.3	595.4	599.6
Business services	531.9	544.6	559.3	548.8	555.3	558.0	560.4	563.1	566.4	568.3
Supplies	327.7	348.5	344.8	345.8	349.2	347.0	342.8	339.1	339.1	344.5
Property taxes and insurance	619.7	654.6	691.9	672.6	680.9	687.5	695.1	704.3	711.6	716.9
Interest, short-term	103.7	115.4	61.0	116.0	91.0	64.1	55.0	33.8	32.5	32.6
Total marketing cost index	472.2	491.5	501.9	497.1	499.5	502.1	503.6	502.2	504.7	509.2

Last two quarters preliminary. * Indexes measure changes in employee earnings and benefits and in prices of supplies used in processing, wholesaling, and retailing U.S. farm foods purchased for at-home consumption. *Information contact: Veronica Jones (202) 694-5387*

Livestock & Products

Table 10—U.S. Meat Supply & Use

	Beg. stocks	Production[1]	Imports	Total supply	Exports	Ending stocks	Consumption: Total	Consumption: Per capita[2]	Conversion factor[3]	Primary market price[4]
				Million lbs.[5]				*Lbs.*		*$/cwt*
Beef										
1999	393	26,493	2,873	29,759	2,412	411	26,936	68	0.700	65.56
2000	411	26,888	3,031	30,330	2,468	525	27,337	68	0.700	69.65
2001	525	26,212	3,161	29,898	2,271	606	27,022	66	0.700	72.71
2002	606	26,711	3,232	30,549	2,292	425	27,832	67	0.700	67.94
2003	425	25,230	3,275	28,930	2,400	350	26,180	63	0.700	75.50
Pork										
1999	584	19,308	827	20,720	1,277	489	18,954	53	0.776	34.00
2000	489	18,952	967	20,407	1,287	478	18,643	51	0.776	44.70
2001	478	19,160	950	20,588	1,563	536	18,489	50	0.776	45.81
2002	536	19,801	960	21,297	1,472	575	19,250	52	0.776	34.87
2003	575	20,022	960	21,557	1,550	600	19,407	52	0.776	34.50
Veal[6]										
1999	5	235	0	240	0	5	235	1	0.83	89.62
2000	5	225	0	230	0	5	225	1	0.83	105.75
2001	5	205	0	210	0	6	204	1	0.83	106.70
2002	6	197	0	203	0	5	198	1	0.83	98.82
2003	5	195	0	200	0	5	195	1	0.83	109.14
Lamb and mutton										
1999	12	248	112	372	5	9	358	1	0.89	75.97
2000	9	234	130	372	5	13	354	1	0.89	79.40
2001	13	227	146	386	7	12	368	1	0.89	72.04
2002	12	222	174	408	4	13	391	1	0.89	64.91
2003	13	213	161	387	5	13	369	1	0.89	65.25
Total red meat										
1999	994	46,284	3,813	51,091	3,694	914	46,483	122	--	--
2000	914	46,299	4,127	51,340	3,760	1,021	46,559	121	--	--
2001	1,021	45,804	4,257	51,082	3,840	1,160	46,082	118	--	--
2002	1,160	46,931	4,366	52,457	3,768	1,018	47,671	121	--	--
2003	1,018	45,660	4,396	51,074	3,955	968	46,151	116	--	--
Broilers										*¢/lb*
1999	711	29,468	4	30,184	4,585	796	24,803	76	0.859	58
2000	796	30,209	6	31,011	4,918	798	25,295	77	0.859	56
2001	798	30,938	14	31,749	5,562	712	25,475	76	0.859	59
2002	712	31,860	10	32,582	4,809	800	26,973	80	0.859	57
2003	800	32,647	12	33,459	5,450	775	27,234	80	0.859	59
Mature chickens										
1999	6	554	0	562	393	8	162	1	1.0	--
2000	8	531	0	540	220	9	311	1	1.0	--
2001	9	515	0	528	182	8	337	1	1.0	--
2002	8	507	0	517	148	8	361	1	1.0	--
2003	8	500	0	509	160	8	341	1	1.0	--
Turkeys										
1999	304	5,230	1	5,535	378	254	4,902	18	1.0	69
2000	254	5,333	1	5,589	445	241	4,902	17	1.0	71
2001	241	5,489	1	5,732	487	241	5,003	18	1.0	66
2002	241	5,561	1	5,803	489	325	4,988	17	1.0	66
2003	325	5,601	1	5,927	490	325	5,111	18	1.0	67
Total poultry										
1999	1,022	35,252	7	36,281	5,356	1,058	29,867	94	--	--
2000	1,058	36,073	9	37,140	5,584	1,048	30,508	95	--	--
2001	1,048	36,942	18	38,008	6,232	961	30,815	95	--	--
2002	961	37,928	13	38,902	5,446	1,133	32,322	99	--	--
2003	1,133	38,747	15	39,895	6,100	1,108	32,686	99	--	--
Red meat and poultry										
1999	2,016	81,537	3,820	87,372	9,050	1,971	76,351	216	--	--
2000	1,971	82,372	4,136	88,480	9,344	2,069	77,068	216	--	--
2001	2,069	82,746	4,275	89,090	10,072	2,121	76,897	213	--	--
2002	2,121	84,859	4,379	91,359	9,214	2,151	79,993	220	--	--
2003	2,151	84,407	4,411	90,696	10,055	2,076	78,837	215	--	--

-- = Not available. Values for the last 2 years are forecasts. 1. Total including farm production for red meat and federally inspected plus nonfederally inspected for poultry. 2. Retail-weight basis. 3. Red meat, carcass to retail conversion; poultry, ready-to-cook production to retail weight. 4. Beef: Medium #1, Nebraska Direct 1,100-1,300 lb.; pork: barrows and gilts, Iowa, Southern Minnesota; veal: farm price of calves; lamb and mutton: choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 5. Carcass weight for red meats and certified ready-to-cook for poultry. 6. Beginning in 1989, veal trade is no longer reported separately. *Information contact: LaVerne Williams (202) 694-5190*

Table 11—U.S. Egg Supply & Use

	Beg. stocks	Production	Imports	Total supply	Exports	Hatching use	Ending stocks	Consumption		Primary market price*
								Total	Per capita	
	Million doz.								*No.*	*¢/doz.*
1996	11.2	6,350.7	5.4	6,367.3	253.1	863.8	8.5	5,241.8	234.6	88.2
1997	8.5	6,473.1	6.9	6,488.5	227.8	894.7	7.4	5,358.6	235.8	81.2
1998	7.4	6,657.9	5.8	6,671.2	218.8	921.8	8.4	5,522.2	240.1	75.8
1999	8.4	6,912.0	7.4	6,927.8	161.9	941.7	7.6	5,816.6	250.0	65.6
2000	7.6	7,033.5	8.4	7,049.5	171.1	940.2	11.4	5,926.8	251.8	68.9
2001	11.4	7,152.0	8.9	7,172.2	190.4	953.0	10.4	6,018.5	252.6	67.2
2002	10.4	7,157.0	7.9	7,175.3	164.2	966.4	12.0	6,032.7	250.4	65.1
2003	12.0	7,210.0	8.0	7,230.0	168.0	1,000.0	12.0	6,050.0	248.7	66.8

Values for the last year are forecasts. Values for previous year are preliminary. * Cartoned grade A large eggs, New York.
Information contact: LaVerne Williams (202) 694-5190

Table 12—U.S. Milk Supply & Use

	Production	Commercial			Imports	Total commercial supply	Commercial				CCC net removals	
		Farm use	Farm marketings	Beg. stocks			CCC net removals	Ending stocks	Disappearance	All milk price[1]	Skim solids basis	Total solids basis[2]
	Million lbs. (milkfat basis)									*$/cwt*	*Billion lbs.*	
1995	155.3	1.6	153.7	4.3	2.9	160.9	2.1	4.1	154.9	12.74	4.4	3.5
1996	154.0	1.5	153.5	4.1	2.9	159.5	0.1	4.7	154.7	14.74	0.7	0.5
1997	156.1	1.4	154.7	4.7	2.7	162.1	1.1	4.9	156.1	13.34	3.7	2.7
1998	157.4	1.4	156.1	4.9	4.6	165.5	0.4	5.3	159.9	15.42	4.0	2.6
1999	162.7	1.4	161.3	5.3	4.7	171.4	0.3	6.1	164.9	14.36	6.5	4.0
2000	167.6	1.3	166.2	6.1	4.4	176.8	0.8	6.9	169.1	12.40	8.6	5.5
2001	165.3	1.3	164.1	6.8	5.7	176.6	0.2	7.0	169.4	14.93	5.8	3.5
2002	169.8	1.2	168.5	7.0	5.0	180.6	0.6	7.5	172.5	12.20	9.6	6.0
2003	172.5	1.2	171.4	7.5	4.8	183.6	0.7	6.6	176.3	12.25	7.6	4.8

Values for latest year are forecasts. Values for the preceding year are preliminary. 1. Delivered to plants and dealers; does not reflect deductions.
2. Arbitrarily weighted average of milkfat basis (40 percent) and solids basis (60 percent).*Information contact: Jim Miller (202) 694-5184*

Table 13—Poultry & Eggs

	Annual			2001		2002				
	1999	2000	2001	May	Dec	Jan	Feb	Mar	Apr	May
Broilers										
Federally inspected slaughter certified (mil. lb.)	29,741.4	30,495.2	31,265.8	2,835.6	2,464.8	2,786.5	2,475.1	2,593.6	2,760.3	2,892.9
Wholesale price, 12-city (cents/lb.)	58.1	56.2	59.1	59.4	56.0	56.9	55.9	55.2	53.5	56.4
Price of grower feed ($/ton)[1]	103.1	104.7	101.3	98.8	100.0	100.0	98.6	101.6	101.7	104.9
Broiler-feed price ratio[2]	7.2	6.6	7.8	8.1	7.4	7.4	6.9	6.3	5.9	6.1
Stocks beginning of period (mil. lb.)	711.1	795.6	797.6	647.0	678.8	711.8	711.3	721.0	802.6	847.1
Broiler-type chicks hatched (mil.)	8,715.4	8,846.2	9,006.6	785.7	769.7	775.7	702.6	790.3	765.0	798.3
Turkeys										
Federally inspected slaughter certified (mil. lb.)	5,296.5	5,402.2	5,561.7	488.3	419.8	484.0	451.6	449.9	492.9	498.9
Wholesale price, Eastern U.S. 8-16 lb. young hens (cents/lb.)	69.0	70.5	66.3	65.7	67.7	60.9	60.0	59.0	59.5	63.5
Price of turkey grower feed ($/ton)[1]	95.0	95.9	95.8	94.0	95.6	94.7	94.7	96.8	95.9	98.6
Turkey-feed price ratio[2]	8.6	8.7	8.2	8.1	8.1	7.2	7.2	6.8	6.8	7.2
Stocks beginning of period (mil. lb.)	304.3	254.3	241.3	392.6	260.0	240.5	325.2	409.9	456.3	516.0
Poults placed in U.S. (mil.)	296.1	297.3	301.6	26.7	24.5	25.9	24.3	25.7	26.0	25.6
Eggs										
Farm production (mil.)	82,944.0	84,393.0	85,819.0	7,240.0	7,404.0	7,245.0	6,561.0	7,395.0	7,081.0	7,262.0
Average number of layers (mil.)	322.9	328.3	335.4	335.2	338.5	338.3	337.0	336.6	335.7	334.4
Rate of lay (eggs per layer on farms)	256.8	257.1	255.8	21.6	21.9	21.4	19.5	22.0	21.1	21.7
Cartoned price, New York, grade A large (cents/doz.)[3]	65.6	68.9	67.1	58.1	67.1	69.7	60.7	76.9	55.8	53.3
Price of laying feed ($/ton)[1]	124.6	123.6	123.6	128.4	126.9	122.2	133.1	118.1	142.2	153.0
Egg-feed price ratio[2]	9.8	10.6	9.9	8.6	9.3	10.2	8.4	11.6	7.3	6.6
Stocks, first of month Frozen (mil. doz.)	8.4	7.6	11.4	12.1	10.5	10.4	10.0	10.6	8.9	7.8
Replacement chicks hatched (mil.)	451.7	430.4	451.8	42.6	31.7	35.5	34.3	36.7	38.2	38.9

1. Calculated from price ratios that were revised February 1995. 2. Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight (revised February 1995). 3. Price of cartoned eggs to volume buyers for delivery to retailers.
Information contact: LaVerne Williams (202) 694-5190

Table 14—Dairy

	Annual			2001		2002				
	1999	2000	2001	May	Dec	Jan	Feb	Mar	Apr	May
Class III (BFP before 2000) 3.5% fat ($/cwt.)	12.43	9.74	13.10	13.83	11.80	11.87	11.63	10.65	10.85	10.82
Wholesale prices										
Butter, Central States (cents/lb.)[1]	125.2	118.5	167.7	190.4	130.2	136.2	126.9	126.4	120.8	109.7
Am. cheese, Wis. assembly pt. (cents/lb.)	142.3	116.2	144.9	160.3	129.1	131.9	123.2	122.2	125.8	122.1
Nonfat dry milk (cents/lb.)[2]	103.5	101.6	100.8	104.0	95.8	94.0	93.6	92.2	90.6	91.7
USDA net removals										
Total (mil. lb.)[3]	343.5	841.4	151.3	11.3	17.4	22.6	26.0	18.6	21.6	25.8
Butter (mil. lb.)	3.7	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Am. cheese (mil. lb.)	4.6	28.0	4.6	0.0	0.8	0.8	0.8	0.0	0.0	0.0
Nonfat dry milk (mil. lb.)	540.6	692.6	494.4	51.2	43.4	67.0	82.7	84.5	98.0	117.3
Milk										
Milk prod. 20 states (mil. lb.)	140,062	144,535	142,817	12,647	12,008	12,272	11,365	12,771	12,555	13,021
Milk per cow (lb.)	18,109	18,533	18,438	1,632	1,549	1,585	1,468	1,649	1,619	1,677
Number of milk cows (1,000)	7,734	7,799	7,746	7,749	7,750	7,745	7,744	7,744	7,754	7,764
U.S. milk production (mil. lb.)[4]	162,716	167,559	165,336	14,646	13,897	14,248	13,190	14,818	14,578	15,114
Stocks, beginning[3]										
Total (mil. lb.)	5,302	6,186	7,010	9,032	7,077	7,259	8,446	9,393	9,866	11,255
Commercial (mil. lb.)	5,274	6,142	6,871	8,778	6,870	7,041	8,229	9,148	9,609	10,968
Government (mil. lb.)	28	44	139	255	206	218	216	245	257	287
Imports, total (mil. lb.)[3]	4,772	4,445	5,716	420	396	415	361	421	389	--
Commercial disappearance (mil. lb.)[3]	164,947	169,132	169,467	14,380	13,998	13,348	12,512	14,655	13,485	--
Butter										
Production (mil. lb.)	1,277.1	1,256.0	1,236.8	111.0	123.0	140.7	125.4	129.0	132.4	126.5
Stocks, beginning (mil. lb.)	25.9	24.9	24.0	111.7	57.6	55.5	99.9	129.4	144.4	197.1
Commercial disappearance (mil. lb.)	1,310.7	1,280.0	1,280.8	91.1	127.1	98.5	100.0	117.9	82.3	--
American cheese										
Production (mil. lb.)	3,532.6	3,641.6	3,519.2	308.5	312.2	315.2	287.4	318.2	316.8	327.4
Stocks, beginning (mil. lb.)	407.6	458.0	521.1	501.0	437.9	448.3	452.9	484.3	497.4	507.6
Commercial disappearance (mil. lb.)	3,542.2	3,595.8	3,656.0	317.4	304.4	314.2	257.5	308.9	309.1	--
Other cheese										
Production (mil. lb.)	4,361.5	4,616.4	4,609.9	398.2	390.9	382.4	359.7	401.3	382.5	396.3
Stocks, beginning (mil. lb.)	109.5	163.3	185.2	208.8	193.2	210.9	234.2	230.6	232.5	246.4
Commercial disappearance (mil. lb.)	4,672.1	4,959.1	4,952.3	419.4	412.5	379.7	391.9	429.5	405.8	--
Nonfat dry milk										
Production (mil. lb.)	1,359.7	1,451.8	1,413.8	140.4	130.8	118.9	125.8	147.8	158.3	158.1
Stocks, beginning (mil. lb.)	56.9	150.9	146.3	127.1	102.8	124.5	120.0	142.5	157.8	160.8
Commercial disappearance (mil. lb.)	737.2	770.6	948.5	82.8	69.7	67.7	21.7	48.2	57.8	--
Frozen dessert										
Production (mil. gal.)[5]	1,301.0	1,304.9	1,325.4	127.3	83.1	95.9	100.1	113.1	121.4	121.3

	Annual			2000	2001				2002	
	1999	2000	2001	IV	I	II	III	IV	I	II
Milk production (mil. lb.)	162,716	167,559	165,336	40,644	41,267	42,681	40,570	40,818	42,256	43,950
Milk per cow (lb.)	17,772	18,201	18,139	4,416	4,514	4,683	4,459	4,483	4,639	4,805
No. of milk cows (1,000)	9,156	9,206	9,115	9,203	9,143	9,114	9,098	9,105	9,109	9,147
Milk-feed price ratio	2.03	1.75	--	1.81	--	--	--	--	--	--
Returns over concentrate costs ($/cwt milk)	11.40	9.40	--	9.80	--	--	--	--	--	--

-- = Not available. Quarterly values for latest year are preliminary. 1. Grade AA Chicago before June 1998. 2. Prices paid f.o.b. Central States production area. 3. Milk equivalent, fat basis. 4. Monthly data ERS estimates. 5. Hard ice cream, ice milk, and hard sherbet. *Information contact: LaVerne Williams (202) 694-5190*

Table 15—Wool

	Annual			2000	2001				2002	
	1999	2000	2001	IV	I	II	III	IV	I	II
U.S. wool price (¢/lb.)[1]	110	108	121	96	101	130	125	126	190	151
Imported wool price (¢/lb.)[2]	136	137	160	136	151	155	167	168	233	247
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	63,535	62,041	52,969	13,914	17,003	13,519	11,584	10,863	10,969	--
Carpet wool (1,000 lb.)	13,950	15,205	13,010	3,886	4,280	3,791	2,919	2,320	1,856	--

-- = Not available. 1. Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" and up. 2. Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10 cents.
Information contact: Wilma L. Davis (202) 694-5304

Table 16—Meat Animals

	Annual		2001	2002					
	1999	2000	2001	Jun	Jan	Feb	Mar	Apr	May	Jun
Cattle on feed (7 states, 1000+ head capacity)										
Number on feed (1,000 head) [1]	9,021	9,752	10,076	9,660	9,910	9,951	9,905	9,934	9,389	9,449
Placed on feed (1,000 head)	21,446	21,875	21,145	1,690	1,907	1,543	1,654	1,235	1,990	1,422
Marketings (1,000 head)	20,124	20,674	19,955	1,824	1,792	1,537	1,565	1,709	1,864	1,773
Other disappearance (1,000 head)	676	702	774	60	74	52	60	71	66	42
Market prices ($/cwt)										
Slaughter cattle										
Choice steers, 1,100-1,300 lb.										
Texas	65.89	69.86	71.98	72.64	64.00	70.81	71.97	67.63	65.49	63.85
Neb. direct	65.56	69.65	72.43	73.76	67.55	71.15	72.59	67.79	65.32	63.64
Boning utility cows, Sioux Falls	38.40	41.71	44.49	49.63	43.75	41.88	44.06	42.88	42.45	41.50
Feeder steers										
Medium no. 1, Oklahoma City										
600-650 lb.	82.64	94.31	95.29	98.87	87.46	90.12	91.45	92.00	88.53	80.89
750-800 lb.	76.39	86.14	88.20	91.12	81.65	82.04	80.03	77.32	76.74	77.42
Slaughter hogs										
Barrows and gilts, 51-52 percent lean										
National Base converted to live equal.	34.00	44.70	45.81	54.53	40.16	40.65	37.47	32.97	34.64	37.32
Sows, Iowa, S.MN 1-2 300-400 lb.	19.26	29.79	33.98	41.88	27.79	29.45	29.50	24.39	25.41	21.11
Slaughter sheep and lambs										
Lambs, Choice, San Angelo	75.96	79.40	72.04	75.21	65.85	70.00	64.00	65.15	64.06	68.75
Ewes, Good, San Angelo	42.45	46.23	45.66	43.89	41.10	39.19	36.00	40.10	38.00	34.83
Feeder lambs										
Choice, San Angelo	80.74	95.86	89.38	81.29	76.25	84.25	78.00	85.00	76.83	74.75
Wholesale meat prices, Midwest										
Boxed beef cut-out value										
Choice, 700-800 lb.	110.90	117.45	122.17	127.85	110.14	109.59	120.02	116.31	115.60	114.53
Select, 700-800 lb.	101.91	108.83	114.42	113.42	107.91	107.18	117.13	109.77	106.16	107.22
Canner and cutter cow beef	66.51	72.57	--	--	--	--	--	--	--	--
Pork cutout	53.45	64.07	66.83	75.32	58.39	58.59	56.12	50.55	51.90	54.40
Pork loins, bone-in, 1/4" trim,14-19 lb.	100.38	117.13	116.97	132.33	106.95	105.73	100.08	94.13	101.71	104.80
Pork bellies, 12-14 lb.	57.12	77.46	78.61	91.50	70.87	70.75	72.55	63.48	58.85	65.90
Hams, bone-in, trimmed, 20-23 lb.	45.18	52.02	56.86	61.08	48.05	52.56	51.56	35.15	33.10	34.36
All fresh beef retail price	260.50	275.30	275.30	304.90	305.10	307.90	306.30	306.50	309.30	301.70
Commercial slaughter (1,000 head) [2]										
Cattle	36,150	36,246	35,370	3,120	3,056	2,615	2,737	2,948	3,147	3,063
Steers	17,932	18,063	17,386	1,583	1,450	1,256	1,329	1,476	1,640	1,620
Heifers	11,868	12,039	11,576	1,036	1,021	894	921	964	988	943
Cows	5,710	5,520	5,774	446	533	419	438	255	464	446
Bull and stags	639	624	632	55	52	46	49	53	54	54
Calves	1,282	1,132	1,007	77	87	73	78	82	78	76
Sheep and lambs	3,701	3,460	3,222	233	255	256	325	278	284	230
Hogs	101,544	97,976	97,962	7,484	8,658	7,500	7,981	8,428	8,326	7,536
Barrows and gilts	97,732	94,604	94,588	7,212	8,369	7,252	7,705	8,144	8,027	7,251
Commercial production (mil. lb.)										
Beef	26,385	26,776	26,108	2,241	2,330	1,987	2,059	2,194	2,336	2,303
Veal	224	215	194	15	17	14	15	16	15	15
Lamb and mutton	243	232	224	16	18	18	22	19	20	15
Pork	19,278	18,929	19,139	1,439	1,716	1,482	1,581	1,673	1,647	1,480

	Annual		2001					2002		
	1999	2000	2001	I	II	III	IV	I	II	III
Hogs and pigs (U.S.) [3]										
Inventory (1,000 head) [1]	62,206	59,342	59,138	59,138	57,524	58,603	59,777	59,804	58,898	59,837
Breeding (1,000 head) [1]	6,682	6,234	6,270	6,270	6,232	6,186	6,158	6,209	6,236	6,209
Market (1,000 head) [1]	55,523	53,109	52,868	52,868	51,292	52,417	53,619	53,594	52,661	53,627
Farrowings (1,000 head)	11,641	11,462	11,303	2,748	2,870	2,878	2,889	2,832	2,933	2,930
Pig crop (1,000 head)	102,354	101,354	99,473	23,963	25,509	25,539	25,492	24,711	25,851	--
Cattle on Feed, 7 states (1,000 head) [1, 4]										
Steers and steer calves	5,432	5,768	5,936	5,936	5,885	5,521	5,690	6,077	6,180	5,541
Heifers and heifer calves	3,552	3,942	4,081	4,081	3,913	3,894	3,882	3,769	3,718	3,474
Cows and bulls	37	42	59	59	61	51	41	64	36	41

-- = Not available. 1. Beginning of period. 2. Classes estimated. 3. Quarters are Dec. of preceding year to Feb. (I), Mar.-May (II), June-Aug. (III), and Sept.-Nov. (IV). 4. The 7 states include AZ, CA, CO, IA, KS, NE, and TX. *Information contact: Leland Southard (202) 694-5187*

Crops & Products

Table 17—Supply & Utilization[1,2]

	Area											
	Planted	Harvested	Yield	Production	Total supply[4]	Feed & residual	Other domestic use	Exports	Total use	Ending stocks	Farm price[5]
	Mil. acres		*Bu./acre*			*Mil. bu.*					*$/bu.*
Wheat											
1998/99	65.8	59.0	43.2	2,547	3,373	391	990	1,046	2,427	946	2.65
1999/00	62.7	53.8	42.7	2,299	3,339	288	1,013	1,089	2,390	950	2.48
2000/01	62.6	53.1	42.0	2,232	3,272	299	1,036	1,061	2,396	876	2.62
2001/02*	59.6	48.7	40.2	1,958	2,939	185	1,021	960	2,167	772	2.78
2002/03*	60.1	47.6	36.7	1,749	2,626	175	1,031	900	2,106	520	2.75-3.35
	Mil. acres		*Lb./acre*			*Mil. cwt (rough equiv)*					*$/cwt*
Rice[6]											
1998/99	3.3	3.3	5,663.0	184.4	223.0	--	6/ 114.0	86.8	200.9	22.1	8.89
1999/00	3.5	3.5	5,866.0	206.0	238.2	--	6/ 121.9	88.8	210.7	27.5	5.93
2000/01	3.1	3.0	6,281.0	190.9	229.2	--	6/ 114.3	86.4	200.7	28.5	5.61
2001/02*	3.3	3.3	6,429.0	213.0	254.8	--	6/ 123.0	96.0	219.0	35.8	4.18
2002/03*	3.3	3.2	6,322.0	204.0	253.3	--	6/ 126.2	92.0	218.2	35.1	4.50-5.00
	Mil. acres		*Bu./acre*			*Mil. bu.*					*$/bu.*
Corn											
1998/99	80.2	72.6	134.4	9,759	11,085	5,468	1,846	1,984	9,298	1,787	1.94
1999/00	77.4	70.5	133.8	9,431	11,232	5,665	1,913	1,937	9,515	1,718	1.82
2000/01	79.6	72.4	136.9	9,915	11,639	5,848	1,957	1,935	9,740	1,899	1.85
2001/02*	75.8	68.8	138.2	9,507	11,416	5,825	2,045	1,925	9,795	1,621	1.91
2002/03*	78.9	72.1	135.8	9,790	11,426	5,750	2,160	2,050	9,960	1,466	1.80-2.20
	Mil. acres		*Bu./acre*			*Mil. bu.*					$/bu.
Sorghum											
1998/99	9.6	7.7	67.3	520	569	262	45	197	504	65	1.66
1999/00	9.3	8.5	69.7	595	660	285	55	255	595	65	1.57
2000/01	9.2	7.7	60.9	471	536	220	35	239	494	42	1.89
2001/02*	10.3	8.6	59.9	515	556	215	45	250	510	46	1.85
2002/03*	9.3	7.9	69.0	546	592	235	50	250	535	57	1.65-2.05
	Mil. acres		*Bu./acre*			*Mil. bu.*					*$/bu.*
Barley											
1998/99	6.3	5.9	60.0	352	501	161	170	29	360	142	1.98
1999/00	5.2	4.7	59.2	280	450	138	172	28	338	111	2.13
2000/01	5.9	5.2	61.1	319	459	123	172	58	353	106	2.11
2001/02*	5.0	4.3	58.2	250	379	86	172	28	286	93	2.23
2002/03*	5.0	4.5	59.0	265	388	100	172	25	297	91	1.95-2.35
	Mil. acres		*Bu./acre*			*Mil. bu.*					*$/bu.*
Oats											
1998/99	4.9	2.8	60.2	166	348	196	69	2	266	81	1.10
1999/00	4.7	2.5	59.6	146	326	180	68	2	250	76	1.12
2000/01	4.5	2.3	64.2	150	332	189	68	2	259	73	1.10
2001/02*	4.4	1.9	61.3	117	288	149	72	3	224	63	1.58
2002/03*	5.1	2.6	56.1	148	311	175	72	2	249	62	1.00-1.40
	Mil. acres		*Bu./acre*			*Mil. bu.*					*$/bu.*
Soybeans[7]											
1998/99	72.0	70.4	38.9	2,741	2,944	201	1,590	805	2,595	348	4.93
1999/00	73.7	72.4	36.6	2,654	3,006	164	1,578	975	2,716	290	4.63
2000/01	74.3	72.4	38.1	2,758	3,052	163	1,641	1,000	2,804	248	4.54
2001/02*	74.1	73.0	39.6	2,891	3,141	181	1,705	1,045	2,931	210	4.30
2002/03*	73.0	72.0	39.7	2,860	3,074	174	1,715	955	2,844	230	4.15-5.05
						Mil. lbs.					*¢/lb.*
Soybean oil											
1998/99	--	--	--	18,081	19,546	--	15,655	2,372	18,027	1,520	19.90
1999/00	--	--	--	17,825	19,426	--	16,056	1,375	17,431	1,995	15.60
2000/01	--	--	--	18,434	20,502	--	16,219	1,406	17,625	2,877	14.15
2001/02*	--	--	--	18,920	21,835	--	16,800	2,300	19,100	2,735	15.50
2002/03*	--	--	--	19,225	22,025	--	17,300	2,150	19,450	2,575	15.25-18.25
						1,000 tons					*$/ton*[8]
Soybean meal											
1998/99	--	--	--	37,792	38,109	--	30,657	7,122	37,779	330	138.5
1999/00	--	--	--	37,591	37,970	--	30,345	7,332	37,678	293	167.7
2000/01	--	--	--	39,389	39,733	--	31,687	7,662	39,349	383	173.6
2001/02*	--	--	--	40,552	41,125	--	33,100	7,750	40,850	275	165.0
2002/03*	--	--	--	40,860	41,200	--	33,500	7,450	40,950	250	150-180

See footnotes at end of table, next page

Table 17—Supply & Utilization (continued)

	Area										
	Planted	Harvested	Yield	Production	Total supply [3]	Feed & residual	Other domestic use	Exports	Total use	Ending stocks	Farm price [4]
	Mil. acres		*Lb./acre*	*Mil. bales*							*¢/lb.*
Cotton [8]											
1998/99	13.4	10.7	625	13.9	18.2	--	10.4	4.3	14.7	3.9	60.2
1999/00	14.9	13.4	607	17.0	21.0	--	10.2	6.8	16.9	3.9	45.0
2000/01	15.5	13.1	632	17.2	21.1	--	8.9	6.8	15.6	6.0	49.8
2001/02*	15.8	13.8	705	20.3	26.3	--	7.6	11.0	18.6	7.7	31.0
2002/03*	14.4	13.3	632	17.5	25.2	--	7.8	10.8	18.6	6.6	--

-- = Not available or not applicable. *July 11, 2002 Supply and Demand Estimates. 1. Marketing year beginning June 1 for wheat, barley and oats; August 1 for cotton and rice; September 1 for soybeans, corn, and sorghum; October 1 for soymeal and soyoil. 2. Conversion factors: hectare (ha.) = 2.471 acres, 1 metric ton = 2,204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, and 4.59 480-pound bales of cotton. 3. Includes imports. 4. Marketing-year weighted average price received by farmers. Does not include an allowance for loans outstanding and government purchases. 5. Residual included in domestic use. 6. Includes seed. 7. Simple average of 48 percent protein, Decatur. 8. Upland and extra-long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply and use estimates. For 2001/02, cotton price is the average for August 2001-May 2002. USDA is prohibited by law from publishing cotton price projections. *Information contact: Wilma Davis (202) 694-5304*

Table 18—Cash Prices, Selected U.S. Commodities

	Marketing year[1]			2001	2002					
	1998/99	1999/2000	2000/01	Jun	Jan	Feb	Mar	Apr	May	Jun
Wheat, no. 1 HRW, Kansas City ($/bu.)[2]	2.67	2.87	3.30	3.32	3.29	3.25	3.23	3.24	3.21	3.55
Wheat, DNS, Minneapolis ($/bu.)[3]	3.83	3.65	3.62	3.81	3.55	3.51	3.51	3.55	3.59	3.64
Rice, S.W. La. ($/cwt)[4]	16.79	12.99	12.46	12.38	9.97	9.88	9.81	9.25	9.15	9.13
Corn, no. 2 yellow, 30-day, Chicago ($/bu.)	2.06	1.97	1.99	1.89	2.06	2.06	2.05	2.03	2.08	2.15
Sorghum, no. 2 yellow, Kansas City ($/cwt)	3.29	3.10	3.41	3.26	3.61	3.55	3.58	3.47	3.44	3.57
Barley, feed, Duluth ($/bu.)	--	--	--	1.50	1.55	1.55	1.55	1.55	1.55	1.55
Barley, malting Minneapolis ($/bu.)	--	--	--	--	2.48	2.48	2.48	2.47	2.45	2.48
U.S. cotton price, SLM, 1-1/16 in. (¢/lb.)[5]	60.12	52.36	51.56	37.38	32.13	31.60	33.23	31.86	31.14	36.36
Northern Europe prices cotton index (¢/lb.)[6]	72.11	52.85	57.25	47.33	43.39	42.59	42.01	41.61	40.01	40.01
U.S. M 1-3/32 in. (¢/lb.)[7]	74.08	59.64	62.54	51.44	44.65	43.56	46.00	45.00	42.55	42.55
Soybeans, no. 1 yellow, 15-day [8] Central Illinois ($/bu)	4.85	4.76	4.61	4.58	4.25	4.35	4.57	4.66	4.82	5.09
Soybean oil, crude, Decatur (¢/lb.)	19.80	15.59	14.10	14.20	14.80	14.15	14.75	15.31	15.99	17.69
Soybean meal, high protein, Decatur ($/ton)	138.55	167.62	173.62	172.60	158.01	153.11	160.49	161.57	164.28	170.33

-- = Not available. 1. Beginning June 1 for wheat and barley; Aug. 1 for rice and cotton; Sept. 1 for corn, sorghum, and soybeans; Oct. 1 for soymeal and oil. 2. Ordinary protein. 3. 14 percent protein. 4. Long grain, milled basis. 5. Average spot market. 6. Liverpool Cotlook "A" Index; average of 5 lowest priced growth. 7. Cotton, Memphis territory growth. 8. Soybean 30-day price discontinued. *Information contact: Wilma Davis (202) 694-5304*

Table 19—Farm Programs, Price Supports, Participation, & Payment Rates

	Marketing assistance loan rate	Marketing loan benefit [1]	Flexibility contract payment rate	Acres under contract	Contract payment yields
				Mil. acres	*Bu./acre*
Wheat		*$/bu.*			
1997/98	2.58	0.01	0.631	76.7	34.70
1998/99	2.58	0.19	0.663	78.9	34.50
1999/2000	2.58	0.41	0.637	79.0	34.50
2000/2001	2.58	--	0.588	78.9	34.50
2001/2002 [2]	2.58	--	0.474	78.2	34.60
					Cwt/acre
Rice		*$/cwt*			
1997/98	6.50	0.00	2.710	4.2	48.17
1998/99	6.50	0.08	2.921	4.2	48.17
1999/2000	6.50	1.94	2.820	4.2	48.15
2000/2001	6.50	--	2.600	4.1	48.15
2001/2002 [2]	6.50	--	2.100	4.1	48.15
					Bu./acre
Corn		*$/bu.*			
1997/98	1.89	0.01	0.486	80.9	102.80
1998/99	1.89	0.14	0.377	82.0	102.60
1999/2000	1.89	0.26	0.363	81.9	102.60
2000/2001	1.89	--	0.334	81.9	102.60
2001/2002 [2]	1.89	--	0.269	81.5	102.70
					Bu./acre
Sorghum		*$/bu.*			
1997/98	1.76	0.00	0.544	13.1	57.30
1998/99	1.74	0.12	0.452	13.6	56.90
1999/2000	1.74	0.26	0.435	13.7	56.90
2000/2001	1.71	--	0.400	13.6	57.00
2001/2002 [2]	1.71	--	0.324	13.5	57.00
					Bu./acre
Barley		*$/bu.*			
1997/98	1.57	0.01	0.277	10.5	47.20
1998/99	1.56	0.23	0.284	11.2	46.70
1999/2000	1.59	0.14	0.271	11.2	46.60
2000/2001	1.62	--	0.251	11.2	46.60
2001/2002 [2]	1.65	--	0.206	11.0	46.60
					Bu./acre
Oats		*$/bu.*			
1997/98	1.11	0.00	0.031	6.2	50.80
1998/99	1.11	0.18	0.031	6.5	50.70
1999/2000	1.13	0.19	0.030	6.5	50.60
2000/2001	1.16	--	0.028	6.5	50.60
2001/2002 [2]	1.21	--	0.022	6.5	50.60
					Bu./acre
Soybeans [3]		*$/bu.*			
1997/98	5.26	0.01	--	--	--
1998/99	5.26	0.45	--	--	--
1999/2000	5.26	0.88	--	--	--
2000/2001	5.26	--	--	--	--
2001/2002	5.26	--	--	--	--
					Lb./acre
Upland cotton		*¢/lb.*			
1997/98	51.92	0.00	7.625	16.2	608.00
1998/99	51.92	0.09	8.173	16.4	604.00
1999/2000	51.92	0.20	7.880	16.4	604.00
2000/2001	51.92	--	7.330	16.3	604.00
2001/2002 [2]	51.92	--	5.990	16.2	605.80

-- = Not available. 1. Weighted average, based on portions of crop receiving marketing loan gains, loan deficiency payments, and no benefits (calculated by Economic Research Service). 2. Estimated payment rates and acres under contract. 3. There are no flexibility contract payments for soybeans.
Information contact: Brenda Chewning, Farm Service Agency (202) 720-8838

Table 20—Fruit

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Citrus[1]										
Production (1,000 tons)	12,452	15,274	14,561	15,799	15,712	17,271	17,770	13,633	17,276	16,392
Per capita consumpt. (lb.)[2]	24.4	26.0	25.0	24.1	25.2	27.5	27.3	21.0	24.5	25.1
Noncitrus [3]										
Production (1,000 tons)	17,124	16,554	17,339	16,348	16,103	18,363	16,545	17,331	18,923	16,822
Per capita consumpt. (lb.)[2]	73.7	73.8	75.6	73.6	73.9	76.1	76.5	81.6	78.7	--

	2001				2002					
	Jun	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Grower prices										
Apples (¢/pound)[4]	14.90	24.80	23.50	23.10	22.10	21.60	22.00	21.80	21.50	22.00
Pears (¢/pound)[4]	--	19.50	18.70	18.15	14.10	13.80	13.35	13.35	13.35	16.85
Oranges ($/box)[5]	3.77	5.12	3.19	3.44	3.89	4.42	4.88	4.30	4.82	4.13
Grapefruit ($/box)[5]	3.44	5.29	3.06	2.30	1.98	1.70	1.23	1.02	1.05	4.16
Stocks, ending										
Fresh apples (mil. lb.)	898	5,564	4,975	4,355	3,629	2,958	2,221	1,550	1,043	644
Fresh pears (mil. lb.)	0	517	412	322	239	188	136	80	43	13
Frozen fruits (mil. lb.)	1,046	1,200	1,156	1,106	1,012	947	862	788	784	891
Frozen conc.orange juice (mil. single-strength gallons)	831	571	574	641	704	724	734	768	809	787

-- = Not available. 1. Year shown is when harvest concluded. 2. Fresh per capita consumption. 3. Calendar year. 4. Fresh use. 5. U.S. equivalent on-tree returns. *Information contact: Susan Pollack (202) 694-5251*

Table 21—Vegetables

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Production[1]										
Total vegetables (1,000 cwt)	689,070	692,022	785,798	751,715	765,645	763,532	732,803	833,622	822,475	780,134
Fresh (1,000 cwt) [2,4]	389,597	390,528	416,173	397,125	412,010	436,459	420,012	449,683	479,223	477,212
Processed (tons) [3,4]	14,973,630	15,074,707	18,481,238	17,729,497	17,681,732	16,353,639	15,639,548	19,196,942	17,162,580	15,146,100
Mushrooms (1,000 lbs)[5]	776,357	750,799	782,340	777,870	776,677	808,678	847,760	854,394	838,611	--
Potatoes (1,000 cwt)	425,367	430,349	469,425	445,099	499,254	467,091	475,771	478,216	513,621	444,766
Sweet potatoes (1,000 cwt)	12,005	11,027	13,380	12,821	13,216	13,327	12,382	12,234	13,794	14,565
Dry edible beans (1,000 cwt)	22,615	21,862	28,950	30,689	27,912	29,370	30,418	33,085	26,409	19,541

	2001				2002					
	Jun	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Shipments (1,000 cwt)										
Fresh	30,027	21,812	20,373	19,855	24,508	20,758	21,353	25,232	37,189	31,215
Iceberg lettuce	3,695	3,735	3,214	2,842	3,381	2,546	2,467	3,642	4,190	3,378
Tomatoes, all	2,547	3,134	3,259	3,831	4,992	4,130	3,743	4,117	4,017	2,861
Dry-bulb onions	3,403	4,566	4,152	3,891	4,291	3,419	3,167	3,529	4,623	3,189
Others [6]	20,382	10,377	9,748	9,291	11,844	10,663	11,976	13,944	24,359	21,787
Potatoes, all	14,885	11,896	12,122	14,294	13,870	11,368	13,965	18,128	18,881	12,152
Sweet potatoes	214	341	695	426	287	276	399	227	308	221

-- = Not available. 1. Calendar year except mushrooms. 2. Includes fresh production of asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes through 1999. In 2000, greens, okra, chile peppers, pumpkins, radishes, and squash were added. 3. Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, and cauliflower. 4. Data after 1991 not comparable to previous years because commodity estimates reinstated in 1992 are included. 5. Fresh and processing agaricus mushrooms only. Excludes specialty varieties. Crop year July 1 - June 30. 6. Includes snap beans, broccoli, cabbage, cauliflower, celery, sweet corn, cucumbers, eggplant, bell peppers, honeydews, and watermelons. *Information contact: Gary Lucier (202) 694-5253*

Table 22—Other Commodities

	Annual		1999	2000				2001	
	1998	1999	2000	IV	I	II	III	IV	I	II
Sugar										
Production[1]	7,891	9,083	8,912	4,667	2,681	922	772	4,537	2,660	827
Deliveries[1]	9,851	10,167	10,091	2,609	2,348	2,513	2,641	2,589	2,399	2,524
Stocks, ending[1]	3,423	3,855	4,338	3,855	4,551	3,498	2,219	4,338	5,122	3,720
Coffee										
Composite green price[2] N.Y. (¢/lb.)	114.43	88.49	71.94	91.79	85.66	75.78	66.73	59.63	54.95	51.97

	Annual		2001	2002					
	1999	2000	Mar	Oct	Nov	Dec	Jan	Feb	Mar
Tobacco									
Avg. price to grower[3]									
Flue-cured ($/lb.)	1.74	1.79	1.86	--	1.91	1.85	--	--	--	--
Burley ($/lb.)	1.90	1.96	1.97	--	--	1.98	1.98	1.98	1.97	1.97
Domestic taxable removals										
Cigarettes (bil.)	423.3	406.0	--	35.3	--	--	--	--	--	--
Large cigars (mil.)[4]	3,844	3,833	--	368	--	--	--	--	--	--

-- = Not available. 1. 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2. Net imports of green and processed coffee. 3. Crop year July-June for flue-cured, October-September for burley. Includes contract sales from 2001 on. 4. Includes imports of large cigars. *Information contacts: sugar and coffee, Fannye Jolly (202) 694-5249; tobacco, Tom Capehart (202) 694-5311*

World Agriculture

Table 23—World Supply & Utilization of Major Crops, Livestock, & Products

	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02 F	2002/03 F
					Million units					
Wheat										
Area (hectares)	221.9	214.5	218.7	230.0	228.0	224.7	216.6	219.1	216.1	218.1
Production (metric tons)	558.6	524.0	538.4	581.9	609.2	589.7	586.2	583.9	580.6	595.8
Exports (metric tons)[1]	101.6	101.5	99.1	100.1	104.0	102.0	112.8	103.5	107.3	105.8
Consumption (metric tons)[2]	556.2	546.9	548.4	575.8	583.4	582.8	588.9	590.5	587.9	596.5
Ending stocks (metric tons)[3]	172.4	149.4	139.5	145.6	171.3	179.8	177.1	170.5	163.2	162.4
Coarse grains										
Area (hectares)	318.7	324.0	313.9	322.7	311.1	307.2	299.6	295.2	299.0	315.5
Production (metric tons)	798.9	871.3	802.9	908.5	883.8	888.9	876.1	858.0	880.1	905.2
Exports (metric tons)[1]	86.3	98.4	87.9	94.2	85.6	96.5	104.4	104.0	100.6	99.1
Consumption (metric tons)[2]	838.6	859.6	841.8	875.1	873.2	869.3	881.8	881.6	899.0	913.7
Ending stocks (metric tons)[3]	179.0	190.6	151.8	185.2	195.7	215.4	209.7	186.1	167.1	158.6
Rice, milled										
Area (hectares)	144.8	147.4	148.0	149.7	151.3	152.2	154.9	151.5	150.9	150.0
Production (metric tons)	355.3	364.5	371.4	380.3	386.8	394.1	409.0	397.3	395.0	394.4
Exports (metric tons)[1]	16.5	20.7	19.7	18.9	27.6	24.9	22.8	24.8	25.0	25.9
Consumption (metric tons)[2]	359.2	366.0	372.0	379.0	379.5	387.3	398.3	404.5	407.3	409.8
Ending stocks (metric tons)[3]	120.0	118.5	117.9	119.2	126.5	133.3	144.0	136.7	124.4	109.0
Total grains										
Area (hectares)	685.4	685.9	680.6	702.4	690.4	684.1	671.1	665.8	666.0	683.6
Production (metric tons)	1,712.8	1,759.8	1,712.7	1,870.7	1,879.8	1,872.7	1,871.3	1,839.2	1,855.7	1,895.3
Exports (metric tons)[1]	204.4	220.6	206.7	213.2	217.2	223.4	240.0	232.3	232.9	230.8
Consumption (metric tons)[2]	1,754.0	1,772.5	1,762.2	1,829.9	1,836.1	1,839.4	1,868.9	1,876.7	1,894.3	1,920.0
Ending stocks (metric tons)[3]	471.4	458.5	409.2	450.0	493.5	528.4	530.8	493.2	454.7	430.1
Oilseeds										
Crush (metric tons)	190.1	208.1	217.5	216.7	226.4	240.6	247.8	255.3	265.3	--
Production (metric tons)	229.4	261.9	258.9	261.4	286.6	294.7	303.4	313.5	323.9	--
Exports (metric tons)	38.7	44.1	44.3	49.6	54.0	55.0	64.5	71.5	70.8	--
Ending stocks (metric tons)	20.3	27.2	22.2	19.1	28.6	31.7	34.1	34.2	33.4	--
Meals										
Production (metric tons)	131.7	142.1	147.3	147.8	153.8	164.6	169.0	175.8	182.8	--
Exports (metric tons)	44.9	46.7	49.8	50.7	51.8	54.4	56.2	56.8	58.3	--
Oils										
Production (metric tons)	63.7	69.6	73.1	73.7	75.2	80.6	86.0	89.4	91.3	--
Exports (metric tons)	24.3	27.1	26.0	28.3	29.8	31.5	32.7	35.0	36.3	--
Cotton										
Area (hectares)	30.7	32.2	36.0	33.8	33.8	33.0	32.3	31.9	33.9	32.5
Production (bales)	77.5	85.9	93.2	89.8	91.9	85.3	87.5	88.8	98.0	89.9
Exports (bales)	26.8	28.5	27.5	26.8	26.7	23.7	27.3	26.6	29.2	30.5
Consumption (bales)	85.4	84.4	85.6	87.6	87.1	84.7	91.0	92.1	93.7	96.2
Ending stocks (bales)	26.4	29.8	37.2	41.4	45.5	47.8	45.3	42.7	47.1	41.2
	1993	1994	1995	1996	1997	1998	1999	2000	2001 E	2002 F
Beef and Pork[4]										
Production (metric tons)	111.6	116.7	122.1	116.6	122.1	127.1	130.3	131.1	138.9	134.9
Consumption (metric tons)	110.6	115.7	120.7	114.1	120.5	125.5	129.2	129.9	131.4	133.9
Exports (metric tons)[1]	6.6	7.2	7.4	7.7	8.4	8.1	9.0	9.2	9.3	9.7
Poultry[4]										
Production (metric tons)	40.5	43.2	47.5	50.4	53.7	54.6	57.7	59.7	61.9	62.9
Consumption (metric tons)	39.4	42.0	47.0	49.6	53.1	53.7	56.8	58.8	60.4	61.3
Exports (metric tons)[1]	2.8	3.6	4.5	5.1	5.1	5.2	5.5	5.9	6.8	7.1
Dairy										
Milk production (metric tons)[5]	--	--	--	364.4	365.6	368.4	372.0	375.9	376.3	--

-- = Not available. E = Estimated, F = forecast. 1. Excludes intra-EU trade but includes intra-FSU trade. 2. Where stocks data are not available, consumption includes stock changes. 3. Stocks data are based on differing marketing years and do not represent levels at a given date. Data not available for all countries. 4. Calendar year, selected countries. 5. Data prior to 1989 no longer comparable.

Information contacts: Crops, Ed Allen (202) 694-5288; red meat and poultry, Leland Southard (202) 694-5187; dairy, LaVerne Williams (202) 694-5190

U.S. Agricultural Trade

Table 24—Prices of Principal U.S. Agricultural Trade Products

	Annual		2001	2002					
	1999	2000	2001	Jun	Jan	Feb	Mar	Apr	May	Jun
Export commodities										
Wheat, f.o.b. vessel, Gulf ports ($/bu.)	3.04	3.17	3.50	3.50	3.46	3.43	3.40	3.39	3.31	3.63
Corn, f.o.b. vessel, Gulf ports ($/bu.)	2.29	2.24	2.28	1.91	2.34	2.31	2.28	2.21	2.29	2.37
Grain sorghum, f.o.b. vessel, Gulf ports ($/bu.)	2.14	2.23	2.42	1.98	2.43	2.35	2.34	2.26	2.30	2.35
Soybeans, f.o.b. vessel, Gulf ports ($/bu.)	5.02	5.26	4.93	4.97	4.75	4.73	4.85	4.92	5.11	5.39
Soybean oil, Decatur (¢/lb.)	17.51	15.01	14.49	14.21	14.82	14.15	14.75	15.31	15.99	17.69
Soybean meal, Decatur ($/ton)	141.52	174.69	168.49	172.60	158.01	153.11	160.49	161.57	164.28	170.33
Cotton, 7-market avg. spot (¢/lb.)	52.30	57.47	39.68	37.38	32.13	31.60	33.23	31.86	31.14	36.37
Tobacco, avg. price at auction (¢/lb.)	177.82	182.73	186.21	--	192.51	187.45	164.45	--	--	--
Rice, f.o.b., mill, Houston ($/cwt)	16.99	14.83	14.55	15.00	12.75	12.25	11.79	12.33	12.30	11.74
Inedible tallow, Chicago (¢/lb.)	12.99	9.92	12.50	10.00	9.50	10.80	11.28	11.75	11.00	15.00
Import commodities										
Coffee, N.Y. spot ($/lb.)	1.05	0.92	0.55	0.54	0.43	0.43	0.48	0.50	0.45	0.43
Rubber, N.Y. spot (¢/lb.)	36.66	37.72	33.88	35.00	32.21	34.42	36.66	36.38	36.93	43.53
Cocoa beans, N.Y. ($/lb.)	0.47	0.36	0.47	0.42	0.61	0.65	0.69	0.70	0.70	0.70

-- = Not available. *Information contact: Wilma Davis (202) 694-5304*

Table 25—Trade Balance

	Fiscal year			2001		2002				
	2000	2001	2002 F	May	Dec	Jan	Feb	Mar	Apr	May
					$ million					
Exports										
Agricultural	50,744	52,699	53,500	4,154	4,659	4,686	4,658	4,436	4,035	4,097
Nonagricultural	650,907	639,167	--	54,923	45,398	43,028	44,111	50,973	48,812	50,523
Total[1]	701,651	691,866	--	59,077	50,057	47,714	48,769	55,409	52,847	54,620
Imports										
Agricultural	38,857	39,027	40,000	3,348	3,122	3,406	3,169	3,530	3,726	3,614
Nonagricultural	1,128,911	1,136,640	--	92,518	78,125	81,370	80,227	87,319	91,856	93,416
Total[2]	1,167,768	1,175,667	--	95,866	81,247	84,776	83,396	90,849	95,582	97,030
Trade balance										
Agricultural	11,887	13,672	13,500	806	1,537	1,280	1,489	906	309	483
Nonagricultural	-478,004	-497,473	--	-37,595	-32,727	-38,342	-36,116	-36,346	-43,044	-42,893
Total[3]	-466,117	-483,801	--	-36,789	-31,190	-37,062	-34,627	-35,440	-42,735	-42,410

F = Forecast. -- = Not available. Fiscal year (Oct. 1-Sep. 30). 1. Domestic exports including Department of Defense shipments (f.a.s. value). 2. Imports for consumption (customs value). 3. Preliminary. *Information contact: Mary Fant (202) 694-5272.*

Table 26—Indexes of Real Trade-Weighted Dollar Exchange Rates[1]

	Annual			2001		2002				
	1999	2000	2001	Nov	Dec	Jan	Feb	Mar	Apr	May
					1995 = 100					
Total U.S. Trade	114.2	119.0	124.3	125.0	126.6	126.9	127.7	126.8	126.6	126.5
U.S. markets										
All agricultural trade	117.5	120.2	126.7	127.5	130.0	130.1	130.8	129.8	129.8	130.0
Bulk commodities	116.6	121.2	128.0	129.0	131.1	131.0	131.6	130.6	130.4	130.6
Corn	116.3	119.2	126.9	127.2	131.9	132.1	133.0	132.2	132.6	133.3
Cotton	112.4	118.3	124.0	125.8	124.2	123.3	123.3	121.9	121.3	120.8
Rice	112.5	117.8	123.8	125.4	126.8	125.2	125.9	124.4	124.0	123.7
Soybeans	119.4	127.3	133.4	134.6	135.2	135.4	136.3	134.9	134.2	134.4
Tobacco, raw	112.8	134.3	144.3	146.5	147.4	146.8	147.8	146.1	145.3	145.3
Wheat	124.6	120.2	125.8	126.6	129.6	129.6	130.4	129.7	129.9	130.3
High-value products	118.3	119.4	125.7	126.3	129.2	129.4	130.1	129.2	129.3	129.5
Processed intermediates	115.1	120.2	125.7	126.6	127.6	127.7	128.7	127.7	127.4	127.3
Soymeal	107.2	117.0	115.8	116.3	116.1	115.6	117.6	116.7	116.6	116.7
Soyoil	98.1	105.2	106.4	107.6	105.2	104.8	104.8	104.1	103.7	103.2
Produce and horticulture	117.3	122.0	128.8	129.7	132.9	133.2	133.7	132.6	132.6	132.9
Fruits	116.8	119.2	126.9	127.5	132.1	132.3	132.6	131.7	132.1	132.5
Vegetables	113.6	114.4	120.3	120.4	125.7	125.6	125.8	124.9	125.2	125.5
High-value processed	121.4	117.8	124.6	124.9	129.2	129.6	130.1	129.2	129.7	130.1
Fruit juices	120.1	123.4	131.2	131.9	136.5	136.9	137.7	136.8	137.1	137.5
Poultry	155.0	116.9	116.8	117.6	116.5	116.7	116.6	115.8	115.6	115.5
Red meats	124.0	121.7	134.1	134.1	143.7	144.2	144.8	143.8	145.2	146.7
U.S. competitors										
All agricultural trade	122.1	135.5	140.9	143.2	140.4	141.7	143.5	142.3	141.4	140.5
Bulk commodities	130.4	134.0	139.6	142.0	138.7	140.8	143.5	143.0	143.0	141.1
Corn	120.5	134.0	138.2	139.5	141.2	149.8	160.8	165.7	169.8	166.0
Cotton	130.7	133.4	129.3	131.2	129.0	133.9	139.7	141.3	142.8	139.9
Rice	120.5	131.1	140.0	142.4	140.0	140.2	141.2	140.8	140.4	139.5
Soybeans	132.1	134.6	148.8	150.0	150.9	163.7	179.3	184.7	189.4	181.0
Tobacco, raw	127.3	121.8	124.5	126.6	114.8	112.9	114.0	111.1	108.5	105.4
Wheat	118.5	129.8	136.2	137.8	137.2	140.6	144.0	144.2	144.5	142.9
High-value products	125.2	139.1	144.4	146.8	143.9	145.3	147.2	145.9	144.8	143.9
Processed intermediates	127.1	138.2	144.6	147.0	144.3	146.7	149.6	148.9	148.5	146.9
Soymeal	132.0	136.9	150.6	152.6	150.5	161.8	175.8	180.4	183.9	176.3
Soyoil	123.3	130.0	140.6	142.1	142.6	154.6	168.9	175.1	180.3	173.6
Produce and horticulture	120.0	133.3	136.5	138.4	135.9	136.6	137.7	136.2	135.0	134.5
Fruits	123.5	135.9	142.0	144.3	141.6	141.1	141.2	139.8	138.8	138.3
Vegetables	109.2	121.7	123.9	125.4	122.3	122.4	122.7	121.5	120.2	119.9
High-value processed	125.7	141.3	146.7	149.2	146.1	147.1	148.7	147.1	145.6	145.0
Fruit juices	122.1	137.0	142.0	144.2	142.9	143.5	145.2	143.8	142.8	142.1
Poultry	121.6	134.9	141.7	144.1	140.7	141.1	142.0	140.1	138.5	137.8
Red meats	122.3	137.8	145.0	147.2	144.9	148.3	151.9	151.4	151.1	149.3
U.S. suppliers										
All agricultural trade	113.5	120.0	124.2	125.3	123.6	123.7	124.4	123.0	122.2	121.0
High-value products	111.6	118.2	121.8	122.4	121.7	122.2	122.9	121.7	121.0	120.1
Processed intermediates	114.8	121.4	126.2	127.1	127.1	127.4	128.0	126.7	126.1	125.4
Grains and feeds	113.0	117.9	122.8	123.5	125.4	125.1	125.3	124.2	123.8	123.6
Vegetable oils	120.9	130.1	137.2	139.1	137.5	137.1	137.5	136.2	135.2	134.4
Produce and horticulture	101.1	103.7	103.3	102.9	101.1	100.7	100.4	99.0	98.1	97.1
Fruits	97.2	98.0	101.3	100.3	101.0	101.9	101.6	100.3	99.4	98.3
Vegetables	84.1	81.3	79.7	78.3	77.3	76.9	76.5	75.6	74.8	74.2
High-value processed	114.9	123.7	128.7	129.7	129.1	130.3	131.8	130.7	130.1	129.1
Cocoa and products	126.1	137.6	140.9	143.7	139.6	139.7	139.7	137.6	136.9	136.1
Coffee and products	111.6	116.4	118.2	118.8	115.2	114.1	114.2	112.0	110.5	109.1
Dairy products	122.5	137.9	143.3	145.4	142.6	143.7	144.7	142.4	140.9	140.2
Fruit juices	122.3	127.8	137.5	138.8	137.5	144.3	152.8	155.0	156.8	151.9
Meats	105.6	115.4	127.1	127.9	128.3	129.2	130.1	128.8	128.3	127.3

Real indexes adjust nominal exchange rates for relative rates of inflation among countries. A higher value means the dollar has appreciated. The weights used for "total U.S. trade" index are based on U.S. total merchandise exports to the largest 85 trading partners. Weights are based on relative importance of major U.S. customers, competitors in world markets, and suppliers to the U.S. Indexes are subject to revision for up to 1 year due to delayed reporting by some countries. High-value products are total agricultural products minus bulk commodities.
Source: Nominal exchange rates are obtained from the IMF International Financial Statisitics. Exchange rates for the EU-11 are obtained from the Board of Governors of the Federal Reserve System. Full historical series are available back to January 1970 at http://usda.mannlib.cornell.edu/data-sets/international/88021/
1. A major revision to the weighting scheme and commodity definitions was completed in May 2000. This significantly altered the series from previous versions.
Information contact: Mathew Shane (202) 694-5282 or email:mshane@ers.usda.gov.

Table 27—U.S. Agricultural Exports & Imports

	Fiscal year			May		Fiscal year			May	
	2000	2001	2002 F	2001	2002	2000	2001	2002 F	2001	2002
	1,000 units					*$ million*				
Exports										
Animals, live	--	--	--	--	--	609	727	--	28	30
Meats and preps., excl. poultry (mt)[1]	2,439	2,442	1,900	217	232	5,429	5,193	4,800	471	448
Dairy products	--	--	--	--	--	998	1,121	1,100	109	84
Poultry meats (mt)	2,593	2,810	2,400	237	233	1,855	2,084	1,600	186	151
Fats, oils, and greases (mt)	1,207	1,049	1,200	88	90	421	320	--	25	31
Hides and skins, incl. furskins	--	--	--	--	--	1,428	1,933	1,900	171	151
Cattle hides, whole	--	--	--	--	--	1,117	1,437	--	141	90
Mink pelts (no.)	4,352	4,277	--	278	438	111	122	--	6	11
Grains and feeds (mt)[2]	103,653	98,895	--	6,976	7,714	13,789	13,818	14,000	1,040	1,058
Wheat (mt)[3]	27,838	25,275	25,500	1,893	1,587	3,384	3,248	3,400	252	208
Wheat flour (mt)	837	496	500	42	47	134	107	--	9	11
Rice (mt)	3,307	3,058	3,300	187	286	905	754	700	44	54
Feed grains, incl. products (mt)[4]	57,199	55,878	56,000	3,632	4,664	5,483	5,470	5,400	357	452
Feeds and fodders (mt)	12,951	12,720	12,700	1,100	976	2,483	2,768	2,600	253	201
Other grain products (mt)	1,521	1,468	--	124	155	1,400	1,470	--	124	132
Fruits, nuts, and preps. (mt)	3,748	3,970	--	296	295	3,877	4,101	4,800	332	336
Fruit juices, incl. froz. (1,000 hectoliters)	11,899	10,781	--	1,047	1,212	715	680	--	66	72
Vegetables and preps.	--	--	--	--	--	4,440	4,511	3,000	407	418
Tobacco, unmanufactured (mt)	180	177	200	14	15	1,227	1,181	1,300	105	117
Cotton, excl. linters (mt)[5]	1,473	1,654	2,400	152	194	1,809	2,079	2,300	187	179
Seeds (mt)	720	703	--	55	73	772	727	800	41	52
Sugar, cane or beet (mt)	113	97	--	10	6	40	38	--	4	2
Oilseeds and products (mt)	36,053	37,037	38,900	1,856	1,936	8,391	8,699	9,200	499	518
Oilseeds (mt)	--	--	--	--	--	--	--	--	--	--
Soybeans (mt)	26,045	26,569	27,800	1,082	1,240	5,071	5,089	5,100	202	242
Protein meal (mt)	6,867	7,223	--	547	432	1,258	1,427	--	98	80
Vegetable oils (mt)	2,134	2,066	--	169	177	1,349	1,175	--	104	113
Essential oils (mt)	53	55	--	5	6	592	675	--	61	71
Other	--	--	--	--	--	4,351	4,811	--	423	381
Total	--	--	--	--	--	50,744	52,699	53,500	4,154	4,097
Imports										
Animals, live	--	--	--	--	--	1,735	2,198	2,200	166	133
Meats and preps., excl. poultry (mt)	1,555	1,600	1,600	130	157	3,723	4,091	4,200	338	397
Beef and veal (mt)	1,027	1,056	--	89	106	2,405	2,645	--	227	270
Pork (mt)	402	399	--	29	37	958	1,039	--	77	83
Dairy products	--	--	--	--	--	1,653	1,728	1,700	150	161
Poultry and products	--	--	--	--	--	287	258	--	29	28
Fats, oils, and greases (mt)	105	106	--	9	8	69	62	--	6	5
Hides and skins, incl. furskins (mt)	--	--	--	--	--	160	162	--	15	11
Wool, unmanufactured (mt)	25	21	--	2	1	66	53	--	4	3
Grains and feeds	--	--	--	--	--	3,038	3,189	3,800	248	262
Fruits, nuts, and preps., excl. juices (mt)[6]	8,367	8,119	8,500	773	808	4,545	4,610	5,300	388	468
Bananas and plantains (mt)	4,396	4,093	4,100	362	374	1,128	1,156	1,200	108	106
Fruit juices (1,000 hectoliters)	32,226	29,293	29,000	2,585	2,638	783	649	--	57	69
Vegetables and preps.	--	--	--	--	--	4,660	5,183	5,400	445	459
Tobacco, unmanufactured (mt)	220	211	300	21	25	651	648	800	63	74
Cotton, unmanufactured (mt)	34	50	--	3	2	28	27	--	3	2
Seeds (mt)	458	316	--	34	25	503	443	--	35	29
Nursery stock and cut flowers	--	--	--	--	--	1,165	1,156	1,100	137	130
Sugar, cane or beet (mt)	1,368	1,378	--	95	108	484	524	--	35	41
Oilseeds and products (mt)	4,062	4,082	3,400	352	313	1,860	1,680	1,500	132	137
Oilseeds (mt)	1,090	987	--	129	69	298	266	--	27	15
Protein meal (mt)	1,205	1,150	--	82	67	152	152	--	11	10
Vegetable oils (mt)	1,767	1,945	--	140	176	1,410	1,261	--	95	112
Beverages, excl. fruit juices (1,000 hectoliters)	--	--	--	--	--	4,701	4,991	--	463	529
Coffee, tea, cocoa, spices (mt)	2,841	2,491	--	214	218	5,218	3,981	--	348	363
Coffee, incl. products (mt)	1,411	1,214	1,200	109	100	2,906	1,761	1,400	156	151
Cocoa beans and products (mt)	1,045	898	1,000	68	76	1,465	1,391	1,700	108	129
Rubber and allied gums (mt)	1,249	1,059	1,000	83	108	841	668	500	53	66
Other	--	--	--	--	--	2,686	2,725	--	234	246
Total	--	--	--	--	--	38,857	39,027	40,000	3,348	3,614

F = Forecast. -- = Not available. Projections are fiscal years (Dec.1 through Sep. 30) and are from Outlook for U.S. Agricultural Exports. 2000 and 2001 data are from *Foreign Agricultural Trade of the U.S* . 1. Projection includes beef, pork, and variety meat. 2. Projection includes pulses. 3. Value projection includes wheat flour. 4. Projection excludes grain products. 5. Projection includes linters. 6. Value projection includes juice.

Information contact: Mary Fant (202) 694-5272.

Table 28—U.S. Agricultural Exports by Region

Region and country	Fiscal year 2000	Fiscal year 2001	Fiscal year 2002 F	2001 May	2001 Dec	2002 Jan	2002 Feb	2002 Mar	2002 Apr	2002 May
					$ million					
Western Europe	6,532	6,761	7,100	459	771	734	814	555	465	449
European Union [1]	6,193	6,249	6,500	396	725	667	710	494	422	404
Belgium-Luxembourg	514	625	--	40	54	59	78	40	52	35
France	348	352	--	20	68	61	36	32	26	28
Germany	910	907	--	72	86	105	91	80	54	55
Italy	559	509	--	28	70	42	92	37	42	31
Netherlands	1,388	1,398	--	75	165	142	156	131	92	98
United Kingdom	1,028	1,048	--	83	108	72	92	77	75	73
Portugal	134	126	--	11	20	40	21	10	8	4
Spain, incl. Canary Islands	641	590	--	26	85	93	88	31	34	38
Other Western Europe	340	512	600	63	46	66	105	60	42	44
Switzerland	250	422	--	54	38	62	99	54	36	39
Eastern Europe	168	201	200	13	34	16	22	14	16	16
Poland	47	83	--	5	12	3	4	3	4	8
Former Yugoslavia	67	44	--	1	13	3	6	2	2	2
Romania	12	24	--	3	4	5	7	2	3	2
Former Soviet Union	921	1,029	900	113	87	105	80	65	21	58
Russia	659	823	700	91	69	91	68	51	14	38
Asia	21,917	22,271	22,100	1,739	1,901	1,989	1,947	1,867	1,665	1,682
West Asia (Mideast)	2,364	2,190	2,600	142	194	203	264	205	217	167
Turkey	701	564	800	41	37	72	81	73	97	72
Iraq	8	8	--	--	--	--	--	--	--	--
Israel, incl. Gaza and W. Bank	459	435	--	28	51	54	47	33	40	32
Saudi Arabia	481	470	400	38	36	18	52	28	26	25
South Asia	415	570	1,100	62	92	66	66	68	70	35
Bangladesh	82	104	--	12	16	8	22	28	10	5
India	185	294	--	32	41	26	24	19	39	19
Pakistan	93	97	--	11	25	28	19	13	20	11
China	1,465	1,875	1,700	73	178	264	220	77	76	92
Japan	9,301	8,942	8,200	816	676	756	666	688	670	717
Southeast Asia	2,580	2,907	2,900	224	246	231	283	274	208	211
Indonesia	675	877	800	86	67	34	96	60	71	72
Philippines	866	836	800	52	56	83	61	85	49	50
Other East Asia	5,791	5,786	5,700	422	515	470	448	555	424	461
Korea, Rep.	2,531	2,541	2,700	180	237	247	238	245	208	209
Hong Kong	1,249	1,252	1,000	91	99	77	83	101	86	93
Taiwan	2,002	1,986	2,000	151	179	146	127	208	129	159
Africa	2,236	2,126	2,300	88	180	186	218	220	210	200
North Africa	1,522	1,464	1,600	49	128	127	159	166	127	139
Morocco	139	120	--	2	17	27	13	11	3	3
Algeria	254	211	--	11	25	19	23	37	10	35
Egypt	1,056	1,004	1,100	34	76	59	111	103	111	97
Sub-Sahara	715	662	700	39	52	60	59	54	83	62
Nigeria	160	233	--	16	23	21	28	17	34	22
S. Africa	165	108	--	8	8	6	11	14	17	15
Latin America and Caribbean	10,614	11,561	11,700	972	972	931	885	981	913	895
Brazil	253	219	300	17	23	18	19	24	16	18
Caribbean Islands	1,463	1,398	1,500	110	117	120	121	133	129	119
Central America	1,132	1,191	1,300	93	99	94	86	111	89	95
Colombia	427	442	500	34	44	48	35	49	38	32
Mexico	6,307	7,277	7,100	618	600	577	544	613	584	548
Peru	200	182	--	24	18	14	19	11	10	30
Venezuela	405	416	300	41	29	22	24	16	16	31
Canada	7,512	7,994	8,500	720	651	682	647	702	703	759
Oceania	487	472	500	39	35	44	43	33	33	35
Total	50,744	52,699	53,500	4,154	4,659	4,686	4,658	4,436	4,035	4,097

F = Forecast. -- = Not available. Based on fiscal year beginning Oct. 1 and ending Sep. 30. 1. Austria, Finland, and Sweden are included in the European Union. Note: Adjusted for transhipments through Canada for 1998 and 1999 through December 1999, transhipments are not distributed by country for 2001 and 2002, but are only included in total. *Information contact: Mary Fant (202) 694-5272.*

Farm Income

Table 29—Value Added to the U.S. Economy by the Agricultural Sector

		1998	1999	2000	2001F	06/06/02 2002F	1992-2001 average
				$ billion			
	Final crop output	101.5	93.2	95.3	96.0	95.9	98.1
	Food grains	8.8	7.0	6.6	6.4	6.3	8.7
	Feed crops	22.7	19.6	20.0	22.8	22.2	22.5
	Cotton	6.1	4.7	4.6	3.8	3.4	5.7
	Oil crops	17.4	13.6	13.9	13.5	13.8	15.1
	Tobacco	2.8	2.3	2.3	2.0	1.9	2.6
	Fruits and tree nuts	11.6	12.3	12.7	13.0	13.1	11.7
	Vegetables	15.2	15.2	15.9	15.7	15.9	14.6
	All other crops	17.2	17.9	18.2	18.1	18.3	16.1
	Home consumption	0.1	0.1	0.1	0.1	0.1	0.1
	Value of inventory adjustment[1]	-0.3	0.4	1.0	0.6	1.0	--
	Final animal output	94.2	95.3	99.3	106.4	99.7	94.1
	Meat animals	43.3	45.6	53.0	53.3	49.9	47.9
	Dairy products	24.1	23.2	20.6	24.7	21.5	21.5
	Poultry and eggs	22.9	22.9	21.8	24.6	24.2	20.7
	Miscellaneous livestock	3.7	3.8	4.1	3.8	3.8	3.5
	Home consumption	0.3	0.4	0.4	0.4	0.4	0.4
	Value of inventory adjustment[1]	-0.3	-0.6	-0.6	-0.5	-0.1	--
	Services and forestry	23.7	25.4	24.0	24.4	24.7	21.1
	Machine hire and customwork	2.2	2.0	2.2	2.2	2.2	2.1
	Forest products sold	3.1	2.7	2.8	2.8	2.8	2.7
	Other farm income	8.7	10.2	8.7	8.7	8.9	6.8
	Gross imputed rental value of farm dwellings	9.8	10.4	10.4	10.7	10.9	9.5
	Final agricultural sector output[2]	219.5	213.8	218.6	226.8	220.3	213.3
Minus	Intermediate consumption outlays:	118.6	119.6	122.4	126.3	125.8	113.0
	Farm origin	44.8	45.6	47.7	49.5	49.8	44.0
	Feed purchased	25.0	24.5	24.5	26.2	27.2	24.0
	Livestock and poultry purchased	12.6	13.8	15.8	15.6	14.4	13.7
	Seed purchased	7.2	7.2	7.3	7.7	8.2	6.3
	Manufactured inputs	28.2	27.1	28.7	29.0	27.5	26.7
	Fertilizers and lime	10.6	9.9	10.0	11.0	9.8	9.9
	Pesticides	9.0	8.6	8.5	8.5	8.5	8.0
	Petroleum fuel and oils	5.6	5.6	7.2	6.4	6.1	5.8
	Electricity	2.9	3.0	3.0	3.1	3.2	2.9
	Other intermediate expenses	45.6	46.9	46.0	47.8	48.4	42.2
	Repair and maintenance of capital items	10.4	10.5	10.8	11.3	11.5	10.0
	Machine hire and customwork	5.4	5.3	5.0	5.1	5.2	4.8
	Marketing, storage, and transportation	6.9	7.3	7.5	7.8	7.8	6.8
	Contract labor	2.4	2.5	2.7	2.8	3.0	2.2
	Miscellaneous expenses	20.6	21.4	20.0	20.7	21.0	18.4
Plus	Net government transactions:	4.9	14.2	15.5	13.9	14.1	5.9
	+ Direct government payments	12.4	21.5	22.9	21.4	21.7	13.1
	- Motor vehicle registration and licensing fees	0.5	0.4	0.5	0.5	0.5	0.4
	- Property taxes	7.0	6.8	6.9	7.0	7.1	6.7
	Gross value added	105.7	108.4	111.7	114.4	108.6	106.2
Minus	Capital consumption	20.0	20.3	20.6	20.6	20.9	19.5
	Net value added [2]	85.8	88.1	91.1	93.8	87.8	86.8
Minus	Factor payments:	42.9	43.8	44.7	45.9	47.3	40.5
	Employee compensation (total hired labor)	16.9	17.5	17.3	18.1	19.3	15.4
	Net rent received by nonoperator landlords	12.7	12.8	13.2	13.7	14.2	12.3
	Real estate and non-real estate interest	13.4	13.6	14.1	14.1	13.7	12.7
	Net farm income[2]	42.9	44.3	46.4	47.9	40.5	46.3

F = forecast. P = preliminary. -- = not available. Numbers may not add due to rounding. 1. A positive value of inventory change represents current-year production not sold by December 31. A negative value is an offset to production from prior years included in current-year sales. 2. Final sector output is the gross value of commodities and services produced within a year. Net value added is the sector's contribution to the National economy. Net farm income is farm operators' share of income from the sector's production activities. The concepts presented are consistent with those employed by the Organization for Economic Cooperation and Development (OECD). *Information contact: Roger Strickland (202) 694-5592, e-mail rogers@ers.usda.gov.*
To confirm that this table contains the current forecast, go to http://www.ers.usda.gov/data/farmincome/finfidmu.htm

Table 30—Farm Income Statistics

	1998	1999	2000	2001F	2002F	1992-2001 average
			$ billion			
Cash income statement						
1. Cash receipts	195.8	188.1	193.6	201.7	194.2	190.5
Crops[1]	101.7	92.6	94.1	95.3	94.8	96.8
Livestock	94.1	95.5	99.5	106.4	99.4	93.7
2. Direct Government payments[2]	12.4	21.5	22.9	21.4	21.7	13.1
3. Farm-related income[3]	13.9	15.0	13.6	13.7	13.9	11.6
4. Gross cash income (1+2+3)	222.1	224.6	230.1	236.8	229.7	215.2
5. Cash expenses[4]	167.4	168.9	172.6	177.7	178.6	159.1
6. Net cash income (4-5)[5]	54.8	55.7	57.5	59.0	51.1	56.1
Farm income statement						
7. Gross cash income (1+2+3)	222.1	224.6	230.1	236.8	229.7	215.2
8. Noncash income[6]	10.3	10.9	11.0	11.3	11.4	10.0
9. Value of inventory adjustment	-0.6	-0.2	0.5	0.1	0.9	na
10. Gross farm income (7+8+9)	231.8	235.3	241.5	248.2	242.0	226.4
11. Total production expenses	189.0	191.0	195.1	200.2	201.5	180.0
12. Net farm income (10-11)	42.9	44.3	46.4	47.9	40.5	46.3

F = forecast. P = preliminary. Numbers may not add due to rounding. 1. Includes commodities placed under CCC loans and profits made on loans redeemed. 2. Direct government payments include only payments made directly to farmers, including realized marketing loan gains. In publications prior to May of 2001, marketing loan gains were included in cash receipts rather than in government payments. 3. Income from custom labor, machine hire, recreational activities, forest product sales, and other farm sources. 4. Excludes depreciation and perquisites to hired labor. 5. Excludes farm operator dwellings. 6. Value of farm products consumed on farms where produced plus the imputed rental value of farm dwellings. 6. Value of farm products consumed on farms where produced plus the imputed rental value of farm dwellings.
Information contacts: Roger Strickland (202) 694-5592, rogers@ers.usda.gov, and Bob McElroy (202) 694-5578, rmcelroy@ers.usda.gov
The current farm income forecast and historical statistics can always be found at http://www.ers.usda.gov/Briefing/FarmIncome/
To confirm that this table contains the current forecast, go to http://www.ers.usda.gov/data/farmincome/finfidmu.htm

Table 31—Average Income to Farm Operator Households[1]

	1998	1999	2000[2]	2001F	2002F
			Dollars per farm		
Net cash farm business income[3]	14,357	13,194	11,175	10,888	8,006
Less depreciation[4]	7,409	7,027	7,357	--	--
Less wages paid to operator[5]	637	499	608	--	--
Less farmland rental income[6]	543	802	757	--	--
Less adjusted farm business income due to other household(s)[7]	1,332	1,262	801	--	--
			Dollars per farm operator household		
Equals adjusted farm business income	4,436	3,603	*1652	--	--
Plus wages paid to operator	637	499	608	--	--
Plus net income from farmland rental[8]	868	1,312	--	--	--
Equals farm self-employment income	5,941	5,415	*2260	--	--
Plus other farm-related earnings[9]	1,165	944	339	--	--
Equals earnings of the operator household from farming activities	7,106	6,359	2,598	2,694	972
Plus earnings of the operator household from off-farm sources[10]	52,628	57,988	59,349	63,040	66,938
Equals average farm operator household income comparable to U.S. average household income, as measured by the CPS	59,734	64,347	61,947	65,733	67,910
			Dollars per U.S. household		
U.S. average household income[11]	51,855	54,842	57,045	--	--
			Percent		
Average farm operator household income as percent of U.S. average household income	115.2	117.3	108.6	--	--
Average operator household earnings from farming activities as percent of average operator household income	11.9	9.9	4.2	--	--

P=preliminary. F = forecast. -- = Not available. * = The relative standard error exceeds 25 percent, but is no more than 50 percent.
1. This table derives farm operator household income estimates from the Agricultural Resource Management Study (ARMS) that are consistent with Current Population Survey (CPS) methodology. The CPS, conducted by the Census Bureau, is the source of official U.S. household income statistics. The CPS defines income to include any income received as cash. The CPS definition departs from a strictly cash concept by including depreciation as an expense that farm operators and other self-employed people subtract from gross receipts when reporting net cash income. 2. Prior to 2000, net cash income from operating another farm and net cash income from farm land rental were included in earnings from farming activities. However, because of a change in the ARMS survey design, net cash income from a farm other than the one being surveyed and net cash income from farm land rental are not separable from total off-farm income. Although there is no effect upon estimates of farm operator household income in 2000, estimates of farm self-employment, other farm related earnings, earnings of the household from farming activities, and earnings of the farm from off-farm sources are not strictly comparable to those from previous years. 3. A component of farm sector income. Excludes incomes of contractors and landlords as well as the income of farms organized as nonfamily corporations or cooperatives and farms run by a hired manager. Includes the income of farms organized as proprietorships, partnerships, and family corporations. 4. Consistent with the CPS definition of self-employment income, reported depreciation expenses are subtracted from net cash income. The ARMS collects farm business depreciation used for tax purposes. 5. Wages paid to the operator are subtracted here because they are not shared among other households that have claims on farm business income. These wages are added to the operator household's adjusted farm business income to obtain farm self-employment income. 6. Gross rental income is subtracted here because net rental income from the farm operation is added below to income received by the household. 7. More than one household may have a claim on the income of a farm business. On average, 1.1 households share the income of a farm business. 8. Includes net rental income from the business. Also includes net rental income from farmland held by household members that is not part of the farm business. Beginning in 2000, net income from farmland rental is considered as part of off-farm income. (See footnote 2.) 9. Wages paid to other operator household members by the farm business and net income from a farm business other than the one being surveyed. In 2000, however, net income from a farm business other than the one being surveyed is included in off-farm earnings. (See footnote 2.) Beginning in 1996, also includes the value of commodities provided to household members for farm work. 10. Wages, salaries, net income from nonfarm businesses, interest, dividends, transfer payments, etc. Beginning in 2000, also includes net cash income from another farm and net cash income from farm rental. (See footnote 2.) 11. From the CPS.
Sources: U.S. Dept. of Agriculture, Economic Research Service, 1998, 1999, and 2000 Agricultural Resource Management Study (ARMS) for farm operator household data. U.S. Dept. of Commerce, Bureau of the Census, Current Population Survey (CPS), for U.S. average household income.
Information contact: Bob Hoppe (202) 694-5572 or rhoppe@ers.usda.gov

Table 32—Balance Sheet of the U.S. Farming Sector

	1998	1999	2000	2001F	2002F
			$ billion		
Farm assets	1,085.3	1,140.8	1,188.3	1,216.4	1,247.3
Real estate	840.4	886.4	929.5	957.3	985.1
Livestock and poultry[1]	63.4	73.2	76.8	76.3	79.9
Machinery and motor vehicles	91.7	92.3	92.0	92.5	93.3
Crops stored [2,3]	29.9	28.3	27.9	28.5	28.4
Purchased inputs	5.0	4.0	4.9	4.6	4.6
Financial assets	54.8	56.6	57.1	57.1	56.0
Total farm debt	172.9	176.4	184.0	192.8	196.5
Real estate debt [3]	89.6	94.2	97.5	103.1	104.6
Non-real estate debt [4]	83.2	82.2	86.5	89.8	91.9
Total farm equity	912.4	964.4	1,004.3	1,023.6	1,050.8
			Percent		
Selected ratios					
Debt to equity	18.9	18.3	18.3	18.8	18.7
Debt to assets	15.9	15.5	15.5	15.9	15.8

F = forecast. P = preliminary. Numbers may not add due to rounding. 1. As of December 31. 2. Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3. Includes CCC storage and drying facilities loans, but excludes debt on operator dwellings. 4. Excludes debt for nonfarm purposes.

Information contacts: Ken Erickson (202) 694-5565, erickson@ers.usda.gov and Jim Ryan (202) 694-5586, e-mail: jimryan@ers.usda.gov

Note: The current farm income and balance sheet forecasts can always be found at http://www.ers.usda.gov/Briefing/FarmIncome/

Table 33—Cash Receipts from Farming

	Annual			2001			2002			
	1999	2000	2001	Apr	Nov	Dec	Jan	Feb	Mar	Apr
					$ million					
Commodity cash receipts [1]	188,132	193,586	203,031	14,829	20,078	18,379	17,505	12,724	13,979	14,177
Livestock and products	95,547	99,473	106,431	8,842	9,058	9,331	8,597	7,503	7,761	7,751
Meat animals	45,614	52,994	53,289	4,562	4,319	5,019	4,409	4,035	3,841	4,065
Dairy products	23,207	20,622	24,695	2,109	2,002	2,099	1,914	1,780	1,920	1,814
Poultry and eggs	22,898	21,789	24,577	1,944	2,196	1,976	1,983	1,457	1,752	1,645
Other	3,828	4,067	3,870	228	540	237	292	231	248	228
Crops	92,585	94,113	96,600	5,986	11,021	9,048	8,908	5,221	6,218	6,426
Food grains	6,965	6,639	6,595	304	437	411	554	218	267	248
Feed crops	19,622	19,960	23,220	980	2,729	2,373	3,007	1,221	1,309	986
Cotton (lint and seed)	4,698	4,555	4,954	157	948	1,088	665	221	204	54
Tobacco	2,273	2,315	1,880	2	280	226	213	39	6	2
Oil-bearing crops	13,608	13,857	14,317	537	1,796	1,110	1,720	763	769	631
Vegetables and melons	15,236	15,889	15,713	1,221	1,152	1,036	1,061	1,161	1,392	1,671
Fruits and tree nuts	12,287	12,692	11,749	644	1,423	999	545	478	622	699
Other	17,894	18,206	18,172	2,140	2,255	1,805	1,143	1,121	1,649	2,136
Government payments	21,513	22,896	20,727	317	--	--	--	--	--	--
Total	209,645	216,482	223,759	15,146	20,078	18,379	17,505	12,724	13,979	14,177

-- = Not available. Annual values for the most recent year and monthly values for current year are preliminary and were estimated as of the 20th of the month prior to publication. 1. Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period.

Information contact: Larry Traub (202) 694-5593 or ltraub@ers.usda.gov. To receive current monthly cash receipts via e-mail, contact Larry Traub.

Table 34—Cash Receipts from Farm Marketings, by State

Region and State	Livestock and products				Crops[1]				Total[1]			
	2000	2001P	Mar 2002	Apr 2002	2000	2001P	Mar 2002	Apr 2002	2000	2001P	Mar 2002	Apr 2002
						$ million						
North Atlantic												
Maine	262	274	22	21	242	211	21	30	504	485	43	50
New Hampshire	60	66	5	5	94	90	8	10	154	155	14	16
Vermont	441	490	37	37	67	67	6	9	508	557	43	46
Massachusetts	91	94	8	8	301	273	13	16	392	367	21	23
Rhode Island	8	8	1	1	40	40	3	5	48	47	4	5
Connecticut	165	177	14	13	337	299	24	31	503	476	38	44
New York	1,934	2,221	167	162	1,189	1,199	82	78	3,123	3,420	249	240
New Jersey	193	204	8	8	619	617	37	53	812	821	45	61
Pennsylvania	2,781	3,146	239	239	1,252	1,309	114	106	4,033	4,455	352	345
North Central												
Ohio	1,751	1,864	135	125	2,654	2,818	164	151	4,405	4,681	299	276
Indiana	1,695	1,870	127	116	2,886	3,237	190	154	4,581	5,107	317	270
Illinois	1,710	1,843	139	128	5,312	5,692	441	335	7,022	7,535	580	464
Michigan	1,335	1,489	112	109	2,140	1,979	118	147	3,475	3,468	230	256
Wisconsin	3,804	4,464	335	336	1,416	1,432	80	90	5,221	5,896	414	426
Minnesota	3,875	4,288	320	301	3,647	3,811	186	178	7,522	8,100	506	479
Iowa	5,747	5,936	485	455	5,027	5,609	299	317	10,774	11,545	784	772
Missouri	2,677	2,679	139	138	1,890	2,145	118	71	4,567	4,824	258	209
North Dakota	639	720	56	34	2,050	2,258	168	124	2,689	2,978	223	158
South Dakota	2,035	2,255	177	187	1,755	1,851	96	65	3,790	4,107	273	253
Nebraska	5,923	6,086	384	433	3,029	3,402	203	152	8,952	9,489	587	585
Kansas	5,488	5,536	416	474	2,417	2,585	117	131	7,905	8,121	533	605
Southern												
Delaware	557	662	41	39	184	186	7	9	741	848	48	48
Maryland	848	949	81	72	625	647	40	52	1,473	1,596	121	124
Virginia	1,549	1,673	109	99	732	771	35	36	2,281	2,444	144	135
West Virginia	339	348	27	30	51	59	3	3	391	408	30	32
North Carolina	4,275	4,644	304	290	3,135	3,086	155	178	7,410	7,729	458	468
South Carolina	792	882	74	70	752	763	40	45	1,544	1,646	114	115
Georgia	3,105	3,540	251	236	1,945	1,975	49	60	5,050	5,515	300	296
Florida	1,378	1,458	112	107	5,573	5,025	650	812	6,951	6,483	761	919
Kentucky	2,335	2,268	118	127	1,271	1,280	54	29	3,605	3,547	172	156
Tennessee	990	1,127	99	91	1,030	1,034	43	41	2,020	2,161	142	132
Alabama	2,684	2,815	198	193	588	705	32	35	3,272	3,520	230	229
Mississippi	2,037	2,276	166	148	886	871	37	41	2,922	3,146	203	189
Arkansas	3,248	3,507	255	249	1,639	1,624	27	21	4,887	5,132	282	270
Louisiana	653	701	67	61	1,167	1,116	27	17	1,820	1,817	94	79
Oklahoma	3,441	3,153	233	255	779	874	39	41	4,220	4,027	272	296
Texas	9,162	9,339	708	707	4,181	4,456	236	277	13,344	13,796	944	985
Western												
Montana	1,102	1,128	88	71	704	657	46	30	1,806	1,785	134	101
Idaho	1,628	2,060	152	166	1,761	1,787	135	126	3,389	3,848	286	292
Wyoming	795	837	58	40	160	145	5	3	954	982	64	43
Colorado	3,332	3,374	261	284	1,229	1,355	99	87	4,561	4,729	361	371
New Mexico	1,613	1,670	122	127	473	545	24	23	2,086	2,215	146	150
Arizona	1,063	1,166	100	106	1,226	1,409	342	89	2,290	2,575	442	195
Utah	770	853	67	70	240	263	19	25	1,010	1,116	86	94
Nevada	237	271	21	21	149	153	12	8	386	425	33	29
Washington	1,710	1,728	117	126	3,339	3,464	255	273	5,050	5,192	372	399
Oregon	826	825	65	70	2,223	2,298	136	149	3,049	3,123	201	218
California	6,269	7,346	534	560	19,241	18,685	1,144	1,627	25,510	26,032	1,678	2,187
Alaska	32	28	2	2	20	24	2	1	52	52	4	4
Hawaii	87	91	8	8	444	419	35	34	530	511	43	42
U.S.	99,473	106,431	7,761	7,751	94,113	96,600	6,218	6,426	193,586	203,031	13,979	14,177

Annual values for the most recent year are preliminary and were estimated as of the 20th of the month prior to publication. Totals may not add because of rounding. 1. Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period.

Information contact: Larry Traub (202) 694-5593 or ltraub@ers.usda.gov. To receive current monthly cash receipts via e-mail, contact Larry Traub.

Table 35—CCC Net Outlays by Commodity & Function

	Fiscal year									
	1994	1995	1996	1997	1998	1999	2000	2001	2002[1]	2003[1]
					$ million					
Commodity/Program										
Feed grains:										
Corn	625	2,090	2,021	2,587	2,873	5,402	10,136	6,297	3,237	4,807
Grain sorghum	130	153	261	284	296	502	979	478	237	324
Barley	202	129	114	109	168	224	397	217	165	190
Oats	5	19	8	8	17	41	61	36	61	60
Corn and oat products	10	1	0	0	0	0	6	8	13	0
Total feed grains	972	2,392	2,404	2,988	3,354	6,169	11,579	7,036	3,713	5,381
Wheat and products	1,729	803	1,491	1,332	2,187	3,435	5,321	2,922	1,944	2,864
Rice	836	814	499	459	491	911	1,774	1,423	1,056	1,209
Upland cotton	1,539	99	685	561	1,132	1,882	3,809	1,868	3,685	3,245
Tobacco	693	-298	-496	-156	376	113	657	386	-25	-66
Dairy	158	4	-98	67	291	480	684	1,140	580	2,255
Soybeans	-183	77	-65	5	139	1,289	2,840	3,281	3,600	3,730
Peanuts	37	120	100	6	-11	21	35	136	220	1,239
Sugar	-24	-3	-63	-34	-30	-51	465	31	-154	-118
Honey	0	-9	-14	-2	0	2	7	23	6	0
Wool and mohair	211	108	55	0	0	10	-2	38	26	23
Operating expense[2]	6	6	6	6	5	4	60	5	60	6
Interest expenditure	-17	-1	140	-111	76	210	736	428	240	366
Export programs[3]	1,950	1,361	-422	125	212	165	216	-2,047	185	20
1988-2000 Disaster/tree/ livestock assistance	2,566	660	95	130	3	2,241	1,452	2,326	284	0
Conservation Reserve Program	0	0	2	1,671	1,693	1,462	1,511	1,658	1,821	1,854
Other conservation programs	0	0	7	105	197	292	263	288	286	212
Other	-137	-103	320	104	28	588	858	1,163	1,156	744
Total	10,336	6,030	4,646	7,256	10,143	19,223	32,265	22,105	18,683	22,964
Function										
Price support loans (net)	527	-119	-951	110	1,128	1,455	3,369	3,189	5,220	3,615
Cash direct payments:[4]										
Production flexibility contract	0	0	5,141	6,320	5,672	5,476	5,057	4,105	3,962	0
Direct payment	0	0	0	0	0	0	0	0	0	3,844
Counter-cyclical payment	0	0	0	0	0	0	0	0	0	5,828
Market loss assistance	0	0	0	0	0	3,011	11,046	5,455	221	1,819
Deficiency	4,391	4,008	567	-1,118	-7	-3	1	-1	0	0
Loan deficiency	495	29	0	0	478	3,360	6,419	5,293	6,311	5,178
Oilseed	0	0	0	0	0	0	460	921	0	0
Cotton user marketing	149	88	34	6	416	280	446	237	204	184
Other	22	9	61	1	0	1	461	820	20	906
Conservation Reserve Program	0	0	2	1,671	1,693	1,435	1,476	1,625	1,804	1,854
Other conservation programs	0	0	0	85	156	247	215	229	248	211
Noninsured Assistance (NAP)	0	0	2	52	23	54	38	64	174	192
Total direct payments	5,057	4,134	5,807	7,017	8,431	13,861	25,619	18,748	12,944	20,016
1988-2000 crop disaster	2,461	577	14	2	-2	1,913	1,251	1,848	240	0
Emergency livestock/tree/DRAP livestock indemn./forage assist.	105	83	81	128	5	328	201	478	43	0
Purchases (net)	293	-51	-249	-60	207	668	120	-1,310	-1,031	-1,807
Producer storage payments	12	23	0	0	0	0	0	0	0	0
Processing, storage, and transportation	112	72	51	33	38	62	81	122	134	148
Export donations ocean transportation	156	50	69	34	40	323	370	362	362	17
Operating expense[2]	6	6	6	6	5	4	60	5	60	6
Interest expenditure	-17	-1	140	-111	76	210	736	428	240	366
Export programs[3]	1,950	1,361	-422	125	212	165	216	-2,047	185	20
Other	-326	-105	100	-28	3	234	242	282	286	583
Total	10,336	6,030	4,646	7,256	10,143	19,223	32,265	22,105	18,683	22,964

1. Estimated in FY 2003 Mid Session Review Budget which was released on July 15, 2002 based on May 2002 supply & demand estimates. The CCC outlays shown for 2002-2003 include the impact of the Farm Security and Rural Investment Act of 2002 which was enacted on May 13, 2002.
2. Does not include CCC Transfers to General Sales Manager. 3. Includes Export Guarantee Program, Direct Export Credit Program, CCC Transfers to the General Sales Manager, Market Access (Promotion) Program, starting in FY 1991 and starting in FY 1992 the Export Guarantee Program - Credit Reform, Export Enhancement Program, Dairy Export Incentive Program, and Technical Assistance to Emerging Markets, and starting in FY 2000, Foreign Market Development Cooperative Program and Quality Samples Program. 4. Includes cash payments only. Excludes generic certificates in FY 1986-96. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski, Farm Service Agency-Budget at (202) 720-3675 or Richard_Pazdalski@wdc.fsa.usda.gov

Food Expenditures

Table 36—Food Sales

	Annual			2002			Year-to-date cumulative		
	1999	2000	2001	Apr	May	Jun	Apr	May	Jun
				$ billion					
Sales[1]									
At home[2]	409.2	424.2	437.0	36.3	36.7	37.2	146.3	183.0	220.2
Away from home[3]	331.0	348.8	366.0	32.0	33.7	33.3	122.7	156.4	189.7
				2001 $ billion					
Sales[1]									
At home[2]	432.1	438.1	437.0	35.7	39.2	36.7	144.0	183.2	219.9
Away from home[3]	348.6	358.9	366.0	31.4	33.0	32.5	120.6	153.6	186.1
				Percent change from year earlier ($ billion)					
Sales[1]									
At home[2]	6.4	3.7	3.0	-0.4	-5.4	-1.5	1.4	-0.1	-0.3
Away from home[3]	5.0	5.4	4.9	6.4	5.5	3.4	5.4	5.4	5.1
				Percent change from year earlier (2001 $ billion)					
Sales[1]									
At home[2]	4.4	1.4	-0.3	-2.1	1.1	-3.0	-0.2	0.1	-0.4
Away from home[3]	2.4	3.0	2.0	4.4	3.3	1.0	3.6	3.5	3.1

-- = Not available. 1. Food only (excludes alcoholic beverages). Not seasonally adjusted. 2. Excludes donations and home production.
3. Excludes donations, child nutrition subsidies, and meals furnished to employees, patients, and inmates.
Information contact: Annette Clauson (202) 694-5389
Note: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food, excluding alcoholic beverages and pet food which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced and consumed on farms and food furnished to employees; (4) this series includes all sales of meals and snacks, while PCE includes only purchases using personal funds, excluding business travel and entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," ERS Ag. Econ. Rpt. No. 575, Aug. 1987, available at http://www.ers.usda.gov/publications/aer575/

Transportation

Table 37—Rail Rates; Grain & Fruit-Vegetable Shipments

	Annual			2001	2002					
	1999	2000	2001	Jun	Jan	Feb	Mar	Apr	May	Jun
Rail freight rate index[1] (Dec. 1984=100)										
All products	113.0	114.5	116.6	116.0	118.5	118.6	118.6	118.4	118.5	119.0
Farm products	121.7	123.1	124.5	122.4	125.0	125.0	124.9	124.2	124.2	124.9
Grain food products	99.7	100.4	102.8	102.8	103.3	103.2	103.2	103.1	103.1	103.5
Grain shipments										
Rail carloadings (1,000 cars)[2]	24.2	21.8	21.6	20.1	22.3	22.5	20.5	19.7	18.3	20.1
Barge shipments (mil. ton)[3]	3.5	3.1	2.9	4.2	1.2	2.0	2.9	3.6	3.4	4.4
Fresh fruit and vegetable shipments[4]										
Piggy back (mil. cwt)	0.7	0.8	0.8	1.0	0.8	0.6	0.7	0.9	1.1	1.0
Rail (mil. cwt)	1.1	1.4	1.4	2.2	1.7	1.0	1.5	1.2	1.7	2.3
Truck (mil. cwt)	45.2	45.0	44.0	56.8	37.9	35.9	45.0	48.1	57.0	55.0

-- = Not available. 1. Department of Labor, Bureau of Labor Statistics. 2. Weekly average; from Association of American Railroads. 3. Shipments on Illinois and Mississippi waterways, U.S. Corps of Engineers. 4. Annual data are monthly average. Agricultural Marketing Service, USDA.
Information contact: Allen Baker (202) 694-5290

Indicators of Farm Productivity

Table 38—Indexes of Farm Production, Input Use, & Productivity[1]

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
					1992 = 100					
Farm output	88	83	89	94	94	100	94	107	101	106
All livestock products	92	93	94	95	98	100	100	108	110	109
Meat animals	95	97	97	96	99	100	100	102	103	100
Dairy products	94	96	95	98	98	100	99	114	115	115
Poultry and eggs	81	83	86	92	96	100	104	110	114	119
All crops	86	75	86	92	92	100	90	106	96	103
Feed crops	84	62	85	88	86	100	76	102	83	98
Food crops	84	76	83	107	82	100	96	97	90	93
Oil crops	88	72	88	87	94	100	85	115	99	107
Sugar	95	91	91	92	96	100	95	106	98	94
Cotton and cottonseed	92	96	75	96	109	100	100	122	110	117
Vegetables and melons	90	81	85	93	97	100	97	113	108	112
Fruit and nuts	95	102	98	97	96	100	107	111	102	102
Farm input[1]	101	100	100	101	102	100	101	102	101	100
Farm labor	101	103	104	102	106	100	96	96	92	100
Farm real estate	100	100	102	101	100	100	98	99	98	99
Durable equipment	120	113	108	105	103	100	97	94	92	89
Energy	102	102	101	100	101	100	100	103	109	104
Fertilizer	106	97	94	97	98	100	111	109	85	89
Pesticides	92	79	93	90	100	100	97	103	94	106
Feed, seed, and purchased livestock	97	96	91	99	99	100	101	102	109	95
Inventories	102	98	93	97	100	100	104	99	108	104
Farm output per unit of input	87	83	90	93	92	100	94	105	100	106
Output per unit of labor										
Farm[2]	87	81	86	92	89	100	98	111	110	106
Nonfarm[3]	95	95	96	96	97	100	100	101	--	--

-- = Not available. Values for latest year preliminary. 1. Includes miscellaneous items not shown separately. 2. Source: Economic Research Service.

3. Source: Bureau of Labor Statistics. *Information contact: John Jones (202) 694-5614*

Food Supply & Use

Table 39—Per Capita Consumption of Major Food Commodities[1]

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
					Lbs.					
Red meats [2,3,4]	111.6	113.5	111.3	113.6	113.6	111.1	109.1	113.3	115.1	113.5
Beef	62.9	62.5	61.0	63.0	63.6	64.1	62.7	63.6	64.4	64.4
Veal	0.8	0.8	0.8	0.8	0.8	1.0	0.8	0.7	0.6	0.5
Lamb & mutton	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.9	0.8	0.8
Pork	46.8	49.2	48.5	49.0	48.4	45.2	44.8	48.2	49.4	47.7
Poultry [2,3,4]	58.2	60.5	62.0	62.7	62.1	63.1	63.1	63.7	66.8	66.5
Chicken	44.1	46.5	48.2	48.8	48.2	48.8	49.5	49.8	52.9	52.9
Turkey	14.0	14.0	13.9	13.9	13.9	14.3	13.6	13.9	13.8	13.6
Fish and shellfish [3]	14.8	14.6	14.8	15.0	14.8	14.5	14.3	14.5	14.9	15.2
Eggs [4]	30.0	30.1	30.1	30.3	29.9	29.9	30.2	30.8	32.1	32.2
Dairy products										
Cheese (excluding cottage) [2,5]	25.0	25.9	26.1	26.6	26.9	27.3	27.5	27.8	29.0	29.8
American	11.0	11.3	11.3	11.4	11.7	11.8	11.8	11.9	12.6	--
Italian	9.3	9.9	9.8	10.2	10.3	10.6	10.8	11.1	11.5	--
Other cheeses [6]	4.6	4.7	5.0	5.0	5.0	4.9	4.9	4.7	4.9	--
Cottage cheese	3.3	3.1	2.9	2.8	2.7	2.6	2.6	2.7	2.6	2.6
Beverage milks [2]	220.5	217.2	211.8	211.4	207.2	206.8	203.2	200.5	199.2	194.9
Fluid whole milk [7]	87.1	83.5	79.5	78.0	74.4	73.5	71.4	70.2	70.7	69.8
Fluid lower fat milk [8]	109.6	108.8	105.8	104.9	101.3	100.1	98.1	96.6	96.0	95.1
Fluid skim milk	23.8	24.9	26.5	28.5	31.5	33.2	33.7	33.7	32.5	30.0
Fluid cream products [9]	7.7	8.0	8.0	8.0	8.3	8.6	8.9	9.0	9.5	9.9
Yogurt (excluding frozen)	4.2	4.2	4.2	4.6	5.0	4.8	5.1	5.0	4.9	5.4
Ice cream	16.2	16.2	16.0	16.0	15.5	15.6	16.1	16.3	16.7	16.5
Lowfat ice cream [10]	7.4	7.0	6.9	7.5	7.4	7.5	7.8	8.1	7.5	7.5
Frozen yogurt	3.5	3.1	3.5	3.4	3.4	2.5	2.0	2.1	1.9	1.8
All dairy products, milk equivalent, milkfat basis [11]	564.1	563.0	569.8	580.1	576.6	566.6	567.5	572.8	584.9	593.0
Fats and oils--total fat content	64.6	66.5	69.2	67.3	65.4	64.2	63.7	64.3	67.0	74.5
Butter and margarine (product weight)	14.8	15.2	15.6	14.7	13.6	13.3	12.5	12.6	12.6	12.8
Shortening	22.3	22.3	25.0	23.9	22.2	21.9	20.5	20.5	21.1	23.1
Lard and edible tallow (direct use)	1.8	3.5	3.4	4.2	4.3	4.6	4.0	5.1	5.6	5.9
Salad and cooking oils	26.3	27.1	26.6	25.9	26.5	25.7	28.1	27.3	28.8	33.7
Fruits and vegetables [12]	651.9	677.9	690.1	702.3	690.5	698.1	708.0	699.2	705.4	707.7
Fruit	254.2	282.0	280.8	287.7	282.0	279.0	289.6	284.1	289.8	279.4
Fresh fruits	112.5	122.9	123.6	125.0	122.6	126.1	129.5	128.9	129.5	126.8
Canned fruit	19.7	22.8	20.6	20.7	17.3	18.4	20.1	17.0	19.2	17.4
Dried fruit	12.2	10.7	12.5	12.7	12.7	11.1	10.6	12.1	10.2	10.5
Frozen fruit	3.8	3.9	3.7	3.7	4.2	3.9	3.6	4.1	3.7	3.7
Selected fruit juices	105.5	121.1	120.2	125.1	125.0	119.2	125.2	121.6	126.8	120.6
Vegetables	397.7	395.9	409.3	414.6	408.5	419.1	418.4	415.1	415.6	428.3
Fresh	170.8	174.2	180.8	186.8	180.9	186.0	190.2	186.4	191.9	201.7
Canning	114.0	111.7	112.0	111.2	109.4	107.8	106.0	107.1	103.3	104.7
Freezing	72.4	70.5	75.4	77.6	78.9	83.4	81.6	80.5	81.0	79.7
Dehydrated and chips	32.7	31.4	33.4	30.7	31.0	33.9	32.7	32.5	30.6	33.7
Pulses	7.8	8.1	7.7	8.3	8.3	7.9	7.9	8.7	8.8	8.6
Peanuts (shelled)	6.5	6.2	6.0	5.7	5.6	5.6	5.8	5.8	6.0	5.7
Tree nuts (shelled)	2.2	2.2	2.3	2.3	1.9	1.9	2.1	2.2	2.5	2.5
Flour and cereal products [13]	182.3	184.7	189.3	192.0	190.3	196.3	197.3	196.1	196.9	199.9
Wheat flour	136.6	138.1	142.2	143.0	140.1	146.5	146.9	144.9	144.0	146.3
Rice (milled basis)	16.2	16.7	16.6	18.0	18.7	17.6	18.1	18.3	19.5	19.7
Caloric sweeteners [14]	137.5	140.5	143.4	145.9	148.0	148.5	151.3	152.6	155.0	152.4
Coffee (green bean equiv.)	10.3	10.0	9.0	8.1	7.9	8.7	9.1	9.3	9.8	10.3
Cocoa (chocolate liquor equiv.)	4.6	4.5	4.3	3.8	3.6	4.2	4.0	4.3	4.5	4.7

-- = Not available. 1. In pounds, retail weight unless otherwise stated. Consumption normally represents total supply minus exports, nonfood use, and ending stocks. Calendar-year data, except fresh citrus fruits, peanuts, tree nuts, and rice, which are on crop-year basis. 2. Totals may not add due to rounding. 3. Boneless, trimmed weight. Chicken series revised to exclude amount of ready-to-cook chicken going to pet food as well as some water leakage that occurs when chicken is cut up before packaging. 4. Excludes shipments to the U.S. territories. 5. Whole and part-skim milk cheese. Natural equivalent of cheese and cheese products. 6. Includes Swiss, Brick, Muenster, cream, Neufchatel, Blue, Gorgonzola, Edam, and Gouda. 7. Plain and flavored. 8. Plain and flavored, and buttermilk. 9. Heavy cream, light cream, half and half, eggnog, sour cream, and dip. 10. Formerly known as ice milk. 11. Includes condensed and evaporated milk and dry milk products. 12. Farm weight. 13. Includes rye, corn, oats, and barley products. Excludes quantities used in alcoholic beverages, corn sweeteners, and fuel. 14. Dry weight equivalent.

Information contact: Jane E. Allshouse (202) 694-5449